

DFCM PRE-BID STAFF REVIEW

Division of Facilities Construction and Management

PROJECT MANUAL:

ENERGY:

OTHER AGENCIES

DFCM PLAN CHECK

Division of Facilities Construction and Management

Phase

Program

Yes

No

Accessability

Architectural

Civil

Electrical

Energy

HVAC

Landscape

Plumbing

Specification

Structural

APPROVALS:

Prime Agency

Date

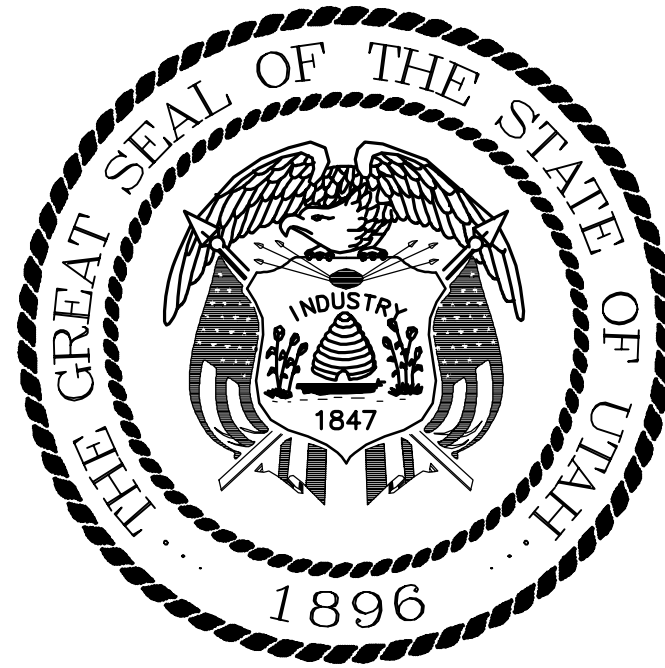
DFCM

Date



UTAH NATIONAL
GUARD

JOINT OPERATIONS
CENTER
DRAPER ARMORY
12953 MINUTEMAN DRIVE
DRAPER, UTAH



State of Utah - Department of Administrative Services
DIVISION OF FACILITIES CONSTRUCTION
AND MANAGEMENT

DFCM PROJECT No. 06036480

| DRAWING INDEX | |
|---------------|--|
| SHEET # | SHEET TITLE |
| GI001 | COVER SHEET, MAPS, GENERAL INFORMATION |
| | ARCHITECTURAL |
| AE001 | GENERAL DEMO., REMODELING & RENOVATION NOTES |
| AE101 | MAIN FLOOR PLAN |
| AE102 | REFLECTED CEILING PLAN |
| AE601 | DOOR & FINISH SCHEDULE / DETAILS |
| | MECHANICAL |
| M101 | MECHANICAL FLOOR PLAN |
| M201 | MECHANICAL SCHEDULES |
| | ELECTRICAL |
| EE001 | SYMBOL LEGEND, SHEET INDEX |
| ED101 | DEMOLITION PLAN |
| EP101 | POWER PLAN |
| EP501 | DETAILS |
| EP502 | DETAILS |
| EL101 | LIGHTING PLAN |
| EL601 | LIGHTING FIXTURE SCHEDULE |
| EY601 | FIRE ALARM SCHEMATIC |

ARCHITECT:

L. K. SORENSEN
ASSOCIATES, INC.
ARCHITECTS/PLANNERS

3448 SOUTH MAIN STREET
SALT LAKE CITY, UTAH 84115
PHONE: (801)478-0800
FAX: (801)487-0816 Email: keith@lksorensenarchitects.com

MECHANICAL ENGINEER:

ADVANCED CONCEPT
ENGINEERING

11851 VISTA GLEN COURT
SANDY, UTAH 84092
PHONE: (801) 572-3055
FAX: (801) 572-3075

ELECTRICAL ENGINEER:

SPECTRUM ENGINEERS

175 SOUTH MAIN, SUITE 300
SALT LAKE CITY, UTAH 84111
PHONE: (801)328-5151
FAX: (801)328-5155

CODE ANALYSIS

APPLICABLE CODES

| | Year | | Year |
|-------------------------------|------|--------------------------|------|
| International Building Code | 2003 | National Electrical Code | 2003 |
| International Mechanical Code | 2003 | Uniform Code for | |
| International Plumbing Code | 2003 | Building Conservation | N/A |
| International Fire Code | 2003 | ADA Accessibility | |
| International Energy | | Guidelines | ANSI |
| Conservation Code | N/A | | |

A. Occupancy and Group: B

Change in Use: Yes No X Mixed Occupancy: Yes No X
Special Use and Occupancy (e.g. High Rise, Covered Mall):

B. Seismic Design Category: N1 Design Wind Speed: N/A_mph

C. Type of Construction (circle one):
I A I B II A II B III A III B IV HT V A V B

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):
North: N/A South: N/A East: N/A West: N/A EXISTING

E. Mixed Occupancies: NO Nonseparated Uses: NO

F. Sprinklers:
Required: Provided: YES Type of Sprinkler System: PRESSURE

G. Number of Stories: 1 Building Height: +/- 35-FEET

H. Actual Area per Floor (square feet): 988 SF THIS PROJECT

I. Tabular Area: N/A

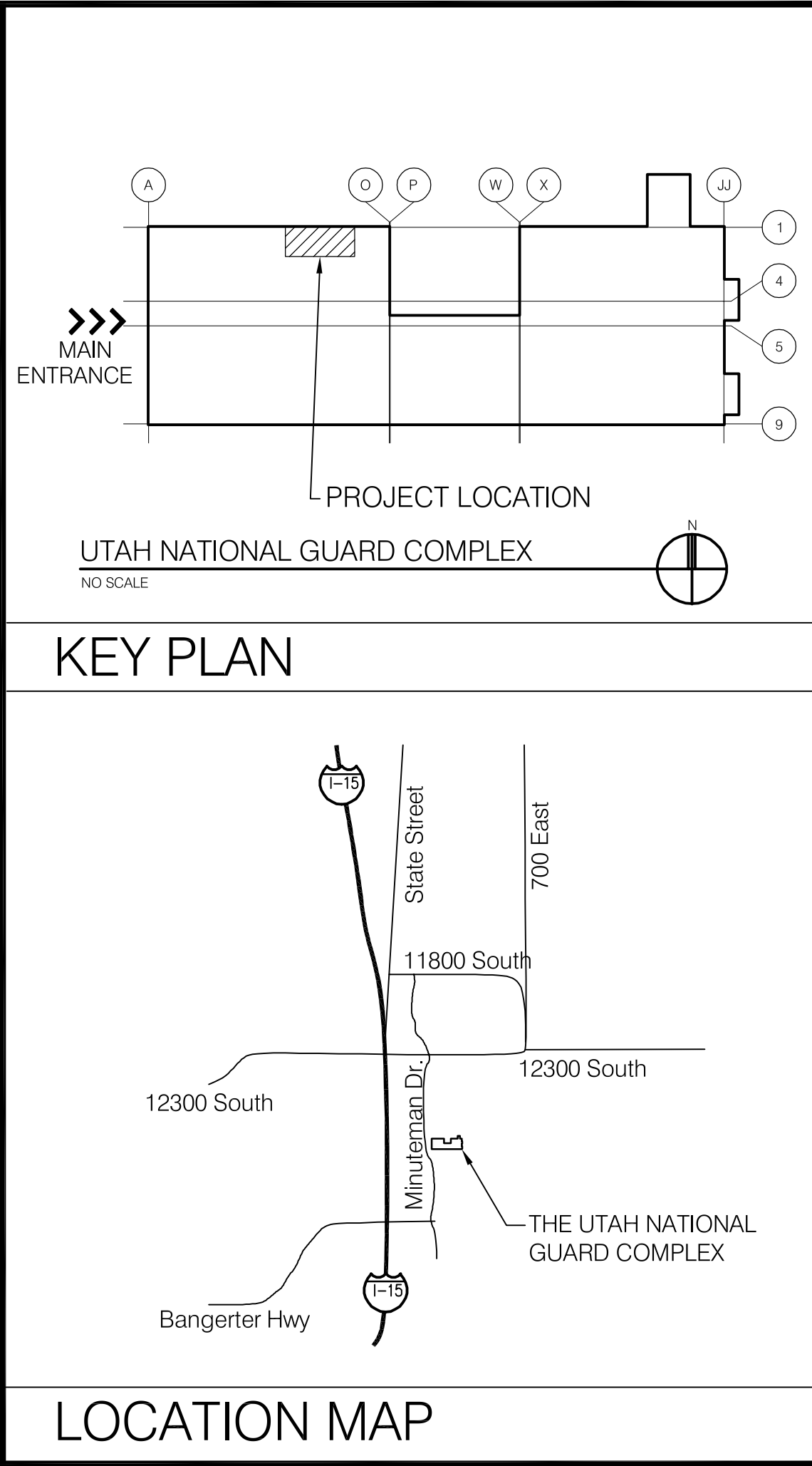
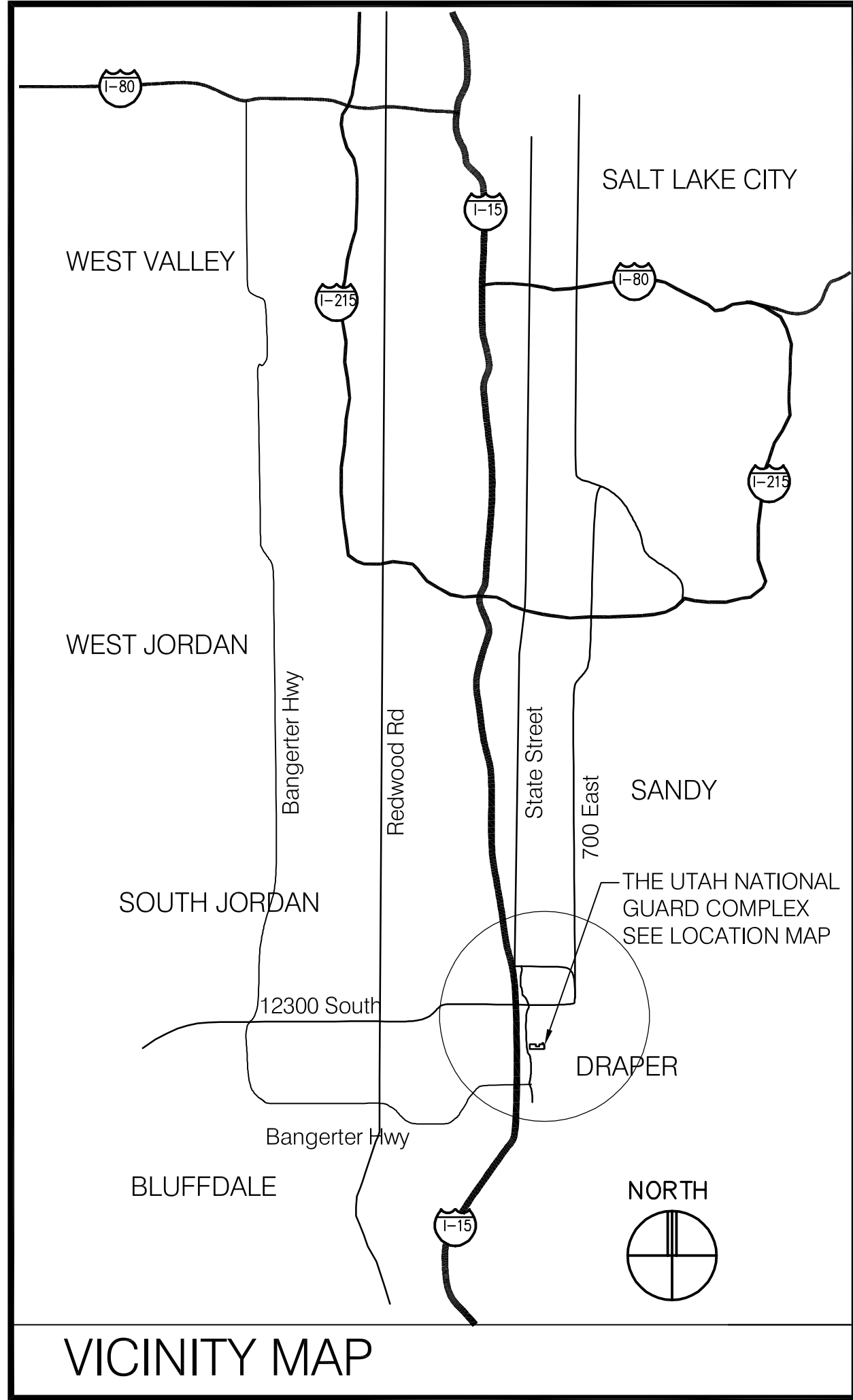
J. Area Modifications: N/A
a) $A_2 = A_1 + \left[\frac{A_1 I_1}{100} \right] + \left[\frac{A_1 I_2}{100} \right]$ $I_1 = 100 \left[\frac{F}{P} - 0.25 \right] \frac{W}{30}$
b) Sum of the Ratio Calculations for Mixed Occupancies:
 $\frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1$
c) Total Allowable Area for:
1) One Story: 2) Two Story: $A_2(2)$ 3) Three Story: $A_2(3)$
d) Unlimited Area Building: Yes X No Code Section:

K. Fire Resistance Rating Requirements for Building Elements (hours): N/A

| Element | Hours | Assembly Listing | Element | Hours | Assembly Listing |
|----------------------------|-------|------------------|----------------------------|-------|------------------|
| Exterior Bearing Walls | | | Floors - Ceiling Floors | | |
| Interior Bearing Walls | | | Roofs - Ceiling Roofs | | |
| Exterior Non-Bearing Walls | | | Exterior Doors and Windows | | |
| Structural Frame | | | Shaft Enclosures | | |
| Partitions - Permanent | | | Fire Walls | | |
| Fire Barriers | | | Fire Partitions | | |
| | | | Smoke Partitions | | |

L. Design Occupant Load: 28
Exit Width Required: 5.6" Exit Width Provided: 36"

M. Minimum Number of Required Plumbing Facilities: N/A
a) Water Closets - Required (m) (f) Provided (m) (f)
b) Lavatories - Required (m) (f) Provided (m) (f)
c) Bath Tubs or Showers: Service Sinks:



SYMBOLS

DETAIL LETTER

LINE WHERE CUT

SHEET ON WHICH DETAIL APPEARS

DETAIL

DIRECTION OF CUT

SECTION LETTER

LINE WHERE CUT

SECTION

SHEET ON WHICH SECTION APPEARS

ELEVATION

DIRECTION OF ELEVATION

ELEVATION NUMBER

SHEET ON WHICH ELEVATION APPEARS

DOOR NUMBER

DOOR DESIGNATION

WINDOW NUMBER

WINDOW DESIGNATION

GRID NUMBER

GRID LINE

GRID DESIGNATION

REFERENCE NOTE

Wx WALL TYPE. SEE SCHEDULE

| ABBREVIATIONS | |
|---------------|------------------------|
| A.F.F. | ABOVE FINISHED |
| ACOUS. | ACOUSTICAL |
| ADJ. | ADJUSTABLE |
| ALUM. | ALUMINUM |
| & | AND |
| @ | AT |
| Z | ANGLE |
| BLDG. | BUILDING |
| BRD. | BOARD |
| BLK'G. | BLOCKING |
| BOT. | BOTTOM |
| CLG. | CEILING |
| CONC. | CONCRETE |
| CONST. | CONSTRUCTION |
| CONT. | CONTINUOUS |
| COORD. | COORDINATE |
| C | CHANNEL |
| Ø | DIAMETER |
| DISP. | DISPENSER |
| DN | DOWN |
| DRY'G. | DRYING |
| EA. | EACH |
| EL. | ELEVATION |
| EQ. | EQUAL |
| EXIST. | EXISTING |
| EXP. | EXPANSION |
| F.E.C. | FIRE EXTINGUISHER |
| CABINET | |
| FNDTN. | FOUNDATION |
| FT. | FEET |
| FTG. | FOOTING |
| F.V. | FIELD VERIFY |
| GYP. BRD. | GYPSON BOARD |
| H.M. | HOLLOW METAL |
| I.D. | INSIDE DIAMETER |
| INSUL. | INSULATION |
| INT. | INTERIOR |
| MAX. | MAXIMUM |
| MANUF. | MANUFACTURER |
| MIN. | MINIMUM |
| MTL. | METAL |
| N.L.B. | NON LOAD BEARING |
| N.I.C. | NOT IN CONTRACT |
| No. | NUMBER |
| O.C. | ON CENTER |
| O.D. | OUTSIDE DIAMETER |
| PART. BRD. | PARTICLE BOARD |
| ? | PLATE |
| ± | PLUS or MINUS |
| PLYWD. | PLYWOOD |
| PRE-FAB. | PRE-FABRICATED |
| P.T.D. | PAPER TOWEL |
| DISPENSER | |
| REINF. | REINFORCED |
| RM. | ROOM |
| SCHED. | SCHEDULE |
| SCWD | SOLID CORE WOOD DOOR |
| S.D. | SOAP DISPENSER |
| S.F. | SQUARE FEET |
| SHT. | SHEET |
| SPECS. | SPECIFICATIONS |
| SQ. | SQUARE |
| STD. | STANDARD |
| T.P.D. | TOILET PAPER |
| DISPENSER | |
| TYP. | TYPICAL |
| U.N.O. | UNLESS NOTED OTHERWISE |
| WATERPRF. | WATERPROOF |
| WITH | |

UTAH NATIONAL GUARD
JOINT OPERATION CENTER
DRAPER ARMORY

IKS #0610

DATE PRINTED:

SET NO.:

FOOTNOTES:

1) In case of conflict with the U.S. Department of Justice Federal Registers Parts I through X - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.

2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:

a) High Rise Requirements.

b) Atriums.

c) Performance Based Criteria.

d) Means or Egress Analysis.

e) Fire Assembly Locator Sheet.

f) Exterior and Interior Accessibility Route.

g) Fire Stopping, Including Tested Design Number.

SHEET NUMBER

GI001

| | | | | | | |
|---|--|---|--|---|--|--|
| | 1 | 2 | 3 | 4 | 5 | |
| | GENERAL DEMOLITION, REMODELING & RENOVATION NOTES: | | WALLS (cont.): | | ROOFING: | |
| | THE FOLLOWING GENERAL NOTES ARE NOT INDEXED TO THE DRAWINGS AND SHALL APPLY TO ALL WORK OF ALL TRADES. | | WN02 WALL FURRING: PREPARATION FOR WALL FURRING INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING: REMOVAL OF MARKER AND TACK BOARDS AND ALL OTHER DISPLAY DEVICES, EXTENSION OF ELECTRICAL SWITCH, OUTLET, AND VOICE/DATA BOXES; RELOCATION OF THERMOSTATS AND ALL OTHER FIRE ALARM SYSTEM OR EQUIPMENT CONTROL DEVICES, AND RELOCATION OF ALL OTHER DEVICES AND/OR FIXTURES REQUIRED TO ALLOW UNIFORM INSTALLATION OF THE NEW WALL FURRING SYSTEM. NOT THAT THE MARKER, TACK AND DISPLAY DEVICE BOARD SHALL BE REINSTALLED WHERE DIRECTED BY THE ARCHITECT UPON COMPLETION OF CONSTRUCTION OF THE WALL FURRING. | | RN01 ALL WORK THAT IMPACTS THE EXISTING ROOF, INCLUDING EQUIPMENT INSTALLATION ON ROOF, ROOF PENETRATIONS, ETC., SHALL BE PERFORMED BY A LICENSED ROOFING CONTRACTOR, APPROVED BY THE OWNER PRIOR TO BIDDING, EXPERIENCED WITH THE EXISTING ROOFING SYSTEM. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE ALL WORK REQUIRED TO MAINTAIN THE INTEGRITY OF THE EXISTING ROOFING ENVELOPE. | |
| D | 1. THE GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL VISIT THE SITE PRIOR TO BIDDING TO EXAMINE AND UNDERSTAND THE SCOPE OF WORK AND ITS IMPACT ON THE EXISTING BUILDING AND IT'S OCCUPANTS. QUESTIONS RESULTING FROM THE SITE VISIT SHALL BE DIRECTED TO THE ARCHITECT FOR RESPONSE PRIOR TO BIDDING. | | | | | |
| | 2. IT IS REQUIRED THAT EACH TRADE UNDERSTANDS THE SCOPE OF WORK FOR OTHER TRADES THAT INTERFACE WITH THE WORK REQUIRED TO COMPLETE THIS PROJECT. ALL WORK SHALL BE COORDINATED AND CONFIRMED BY THE GENERAL CONTRACTOR. ALL QUESTIONS SHALL BE DIRECTED TO THE ARCHITECT PRIOR TO BIDDING. | | FURR EXISTING EXTERIOR MASONRY WALL WITH 3.5-INCH 24 GAGE METAL STUDS SPACED AT MAXIMUM 16-INCHES ON CENTER. INSTALL MINIMUM 3.5-INCH BATTS BETWEEN STUDS FROM FLOOR TO CEILING. INSTALL 5/8-INCH, TYPE "X" GYPSUM WALL BOARD OVER FRAMING AND SOUND DEADENING BOARD. EXTEND WALL FRAMING AND GWB FINISH TO THE STRUCTURE ABOVE. ANCHOR WALLS TO DECK ABOVE WITH AN EXPANSION CHANNEL AS DETAILED AND TO ADJACENT WALLS IN ACCORDANCE WITH ACCEPTED FRAMING PRACTICES. MATERIALS, FINISHES, AND ALL OTHER CONSTRUCTION REQUIREMENTS SHALL CONFORM WITH DRAWINGS AND SPECIFICATIONS. | | RN02 PROVIDE PRE-MANUFACTURED CURB UNITS FOR NEW ROOF-TOP MOUNTED HVAC UNITS. VERIFY SIZE AND LOCATION OF NEW HVAC UNITS. ALSO PROVIDE MINIMUM 3-INCH CANT STRIPS AT PERIMETER OF CURBS ENCLOSED IN NEW ROOFING AT PERIMETER. | |
| | 3. NOTE THAT THE BUILDING WILL BE OCCUPIED BY THE OWNER DURING CONSTRUCTION. REMODELING WORK WILL REQUIRE A COORDINATION PLAN TO BE DEVELOPED AND EXECUTED BY THE CONTRACTOR TO ASSURE THAT OWNER'S OPERATIONS WILL NOT BE RESTRICTED OR COMPROMISED DURING CONSTRUCTION. | | WF03 WALL FURRING AT DUCTWORK: PROVIDE METAL STUD FRAMING AND GWB FURRING FOR DUCTWORK WHERE AND AS SHOWN ON THE DRAWINGS. PAINT PER SPECIFICATIONS. | | RN03 SEE EA05. PROVIDE A NEW ROOF JACK FOR 4-INCH CONDUIT PENETRATING THE ROOF. MODIFY THE ROOFING AS REQUIRED FOR THIS INSTALLATION. PROVIDE AN ANTENNAE CAP FOR THE ROOF JACK. THE ANTENNAE AND SERVICE CABLE WILL BE OFOI. | |
| | 4. THIS BUILDING IS A SECURE FACILITY. THE CONTRACTOR SHALL COMPLY WITH ALL SECURITY REQUIREMENTS IMPOSED BY THE OWNER. | | WF04 EXISTING WALLS – PATCH, REPAIR, AND PREPARE EXISTING WALLS CEILING AND PAINT FULL WALL OR CEILING PER SPECIFICATIONS. THIS INCLUDES REMOVAL OF NON-ESSENTIAL, ANCHORAGE DEVICES OR APPARATUS AND REPAIR OF ANY RESIDUAL DAMAGE. | | EQUIPMENT AND ACCESSORIES: | |
| | 5. PERIMETER OF NEW CONSTRUCTION AND REMODELING, INCLUDING BUT NOT LIMITED TO WALLS, FLOOR COVERING, CEILING SYSTEMS, MECHANICAL, ELECTRICAL WORK, ETC., SHALL BE SEPARATED FROM AREAS NOT INCLUDED IN THE SCOPE OF WORK BY A FIXED DUST BARRIER. | | WF05 SEE OTHER NOTES AND SPECIFICATIONS FOR WALL BLOCKING REQUIREMENTS. | | EA01 PROJECTION SCREEN MOUNTING: PROJECTION SCREEN IS OFOI. CONTRACTOR TO PROVIDE AND INSTALL THREE PIECES OF 72-INCH LENGTH OF 2-INCH UNISTRUT BOLTED BETWEEN EACH OF TWO STEEL JOIST FLOOR FRAMING MEMBERS AT EACH END AND MID POINT OF THE SCREEN LOCATION. VERIFY EXACT LOCATION WITH OWNER. BOLT UNISTRUT THROUGH BOTTOM CHORD OF JOISTS AT EACH CONNECTION POINT. PROVIDE SIX 18-INCH LENGTHS OF THREADED ROD WITH NUTS AND WASHERS TO SUSPEND THREE ADDITIONAL 18-INCH LENGTHS OF UNISTRUT LOCATED ABOVE CEILING GRID TO MOUNT PROJECTION SCREEN. | |
| | 6. ALL DEMOLITION WORK SHALL BE CONDUCTED WITH THE GREATEST OF CARE. FIELD LOCATE ALL BUILDING STRUCTURAL ELEMENTS, CONSTRUCTION TO REMAIN, CONSTRUCTION TO BE REMOVED, UTILITY SYSTEM COMPONENTS AND CONTROLS, DEMOLITION REMOVAL ROUTES AND TRANSPORTATION RESOURCES, ETC, AS REQUIRED TO COMPLETE THE WORK IN IT'S ENTIRETY. A PLAN TO RESOLVE EACH ITEM OR PHASE OF WORK IS PART OF THE SCOPE OF WORK PROVIDED BY THE CONTRACTOR. | | FINISHES: | | EA02 MULTI-MEDIA EQUIPMENT: MULTI-MEDIA EQUIPMENT IS OFOI. CONTRACTOR TO PROVIDE AND INSTALL TWO PIECES OF 72-INCH LENGTH OF 2-INCH UNISTRUT BOLTED BETWEEN EACH OF TWO STEEL JOIST FLOOR FRAMING MEMBERS CENTERED ABOVE PROJECTOR LOCATION. VERIFY EXACT LOCATION WITH OWNER. BOLT UNISTRUT THROUGH BOTTOM CHORD OF JOISTS AT EACH CONNECTION POINT. PROVIDE FOUR 18-INCH LENGTHS OF THREADED ROD WITH NUTS AND WASHERS TO SUSPEND TWO ADDITIONAL 18-INCH LENGTHS OF UNISTRUT LOCATED ABOVE CEILING GRID TO MOUNT PROJECTOR. | |
| C | 7. ALL NEW OPENINGS IN EXISTING FLOORS, WALLS, CEILINGS, ETC., SHALL BE CAREFULLY SAW CUT OR CORE DRILLED TO EXACT DIMENSIONAL REQUIREMENTS. STRUCTURAL SLABS SHALL BE CORE DRILLED WITHOUT DAMAGE TO EXISTING STRUCTURAL SYSTEM. NOTE THAT CONTRACTOR SHALL ARRANGE WITH THE OWNER FOR ACCESS TO AREAS WHERE OPENING ARE REQUIRED TO BE CUT. | | FN01 SEE FINISH SCHEDULE, ALL GENERAL DEMOLITION, REMODELING AND RENOVATION NOTES, AND SPECIFICATIONS FOR SPECIFIC FINISH REQUIREMENTS. | | EA03 NEW ROOF-TOP MOUNTED HVAC SYSTEM EQUIPMENT: PROVIDE AND INSTALL A MINIMUM OF THREE 3.5" x 3.5" x ½" ANGLES, APPROXIMATELY 7-FEET IN LENGTH, WELDED TO AND BETWEEN TOP CHORD OF STEEL ROOF TRUSSES AT EACH END AND APPROXIMATE CENTER OF EACH OF TWO NEW ROOF-TOP MOUNTED HVAC UNITS. VERIFY EXACT SIZE AND LOCATION OF THESE UNITS PRIOR TO INSTALLATION. | |
| | 8. ALL PENETRATIONS SHALL BE FIRE SEALED UPON COMPLETION OF INSTALLATION OF PIPING, CONDUIT, DUCTWORK, ETC. | | CEILINGS: | | EA04 PROVIDE WOOD OR PLYWOOD BLOCKING IN WALL FRAMING FOR MOUNTING CAMERAS, CARD AND CODE READER DEVICES AND OTHER WALL MOUNTED EQUIPMENT. | |
| | 9. ALL EXISTING BUILDING COMPONENTS AFFECTED BY THE WORK REQUIRED TO COMPLETE THIS PROJECT INCLUDING, BUT NOT LIMITED TO, CONTROL DEVICES, PIPING, CONDUIT, FIXTURES, DEVICES, OUTLETS, ETC., FOR MECHANICAL (HVAC), CONTROLS, PLUMBING, PIPING, FIXTURES, ELECTRICAL LIGHTING SHALL BE SAFELY REMOVED, RELOCATED, OR OTHERWISE MODIFIED AS REQUIRED TO COMPLETE THE PROJECT WORK EVEN IF NOT SPECIFICALLY SHOWN ON THE DRAWINGS OR NOTED. THE COST SHALL BE INCLUDED AS PART OF THIS PROJECT WORK. | | CG01 CAREFULLY REMOVE EXISTING 2-FOOT BY 4-FOOT, LAY-IN GRID CEILING SYSTEM INCLUDING CEILING TILE, LIGHT FIXTURES, HVAC SYSTEM GRILLES AND LOUVERS, FIRE PROTECTION DEVICES, AND FIRE SPRINKLER COMPONENTS. | | EA05 PROVIDE A 4-INCH RIGID CONDUIT FROM 24-INCHES ABOVE THE FINISHED MAIN FLOOR UP THE WALL INSIDE NEW WALL FURRING, HORIZONTAL TO EXISTING PIPE CHASE THROUGH SECOND FLOOR FRAMING AND UP THE WALL AND THROUGH THE ROOF STRUCTURE. OVERALL LENGTH OF CONDUIT RUN IS LESS THAN 60-FEET. INCLUDE ANY REMOVAL OF WALL AND/OR CEILING MATERIAL AND REPLACEMENT AND REFINISHING OF REMOVED MATERIAL AFTER COMPLETION OF THE CONDUIT INSTALLATION. SEE RN03. | |
| | THE GENERAL CONTRACTOR WILL COORDINATE AND ASSURE THAT SUBCONTRACT TRADES INCLUDE THIS REQUIREMENT IN THE SCOPE OF THEIR WORK WHETHER SHOWN ON SPECIFIC TRADE DRAWINGS, SPECIFIED OR DESCRIBED ELSEWHERE IN THE CONTRACT DOCUMENTS. | | NOTE THAT UNDAMAGED CEILING TILE REMOVED FROM THIS ROOM SHALL BE USED TO REPLACE DAMAGED CEILING TILE IN NEW ROOM TO SOUTH. OTHER UNDAMAGED CEILING TILE SHALL BE RETURNED TO OWNER AS DIRECTED. | | FIRE PROTECTION SYSTEMS: | |
| | 10. THE SCHEDULE FOR THIS WORK WILL BE DETERMINED BY THE CONTRACTOR AND COORDINATED WITH AND APPROVED BY THE OWNER. | | INSTALL A COMPLETE NEW REPLACEMENT CEILING AS SHOWN ON THE DRAWINGS AND AS SPECIFIED UPON COMPLETION OF OTHER NEW CONSTRUCTION. COORDINATE INSTALLATION OF NEW HVAC, LIGHTING, ELECTRICAL POWER, FIRE SPRINKLER SYSTEM AND OTHER REQUIRED COMPONENTS DURING INSTALLATION. | | FN01 MODIFY EXISTING FIRE SPRINKLER SYSTEM AS REQUIRED TO PROVIDE IBC AND IFC CODE AND STATE FIRE MARSHAL COMPLIANT COVERAGE TO ALL AREAS WITHIN SCOPE OF THIS WORK. THIS WILL REQUIRE RELOCATION OF SEVERAL EXISTING SPRINKLER HEADS AND THE EXPANSION OF THE EXISTING SYSTEM AS REQUIRED WITH NEW HEADS TO BE PROVIDED IN THE NEW AREAS CREATED BY REMODELING. CONNECT TO THE EXISTING FIRE SPRINKLER SYSTEM AS REQUIRED. COORDINATE ALL WORK WITH RELATED TRADES. | |
| B | 11. EXERCISE MAXIMUM CARE TO PROTECT PERSONS WHO USE THE BUILDING DURING THE PERFORMANCE OF THIS WORK. THIS WILL INCLUDE, BUT NOT BE LIMITED TO, PROTECTIVE BARRIERS, NOTIFICATION SIGNAGE, ENVIRONMENTAL CONTROLS, AIR, DUST, AND NOISE CONTROL, ETC. | | CG02 CEILING REMODELING – CAREFULLY REMOVE, PROTECT AND SAVE EXISTING CEILING TILE IN AREAS WHERE NEW WORK IS REQUIRED. REMOVE EXISTING CEILING GRID WHERE NEW PARTITIONS ARE LOCATED. CONSTRUCT NEW WORK INCLUDING WALLS, MECHANICAL SYSTEMS, ELECTRICAL/VOICE/DATA SYSTEMS AND OTHER NEW CONSTRUCTION AS SHOWN ON PLANS AND AS REQUIRED. PROVIDE NEW CEILING GRID AND EDGE TRIM TO MATCH EXISTING IN AREAS WHERE GRID WAS REMOVED. REINSTALL CEILING TILE. | | MECHANICAL (HVAC) SYSTEMS: | |
| | 12. USE OF THE TERMS "PROVIDE" OR "INSTALL" OR SIMILAR TERMINOLOGY MEANS THAT THE CONTRACTOR SHALL FURNISH, PAY FOR, CONSTRUCT, AND/OR INSTALL ALL ELEMENTS OF THE WORK REFERENCED. | | CG03 PROVIDE NEW 5/8-INCH GWB "HARD" CEILING ANCHORED TO SUSPENSION SYSTEM IN NEW VESTIBULE. PREPARE AND PAINT PER SPECIFICATIONS. | | MN01 SEE MECHANICAL DRAWINGS AND DEMOLITION AND REMODELING NOTES. COORDINATE ALL WORK WITH RELATED TRADES INCLUDING ELECTRICAL. | |
| | THE FOLLOWING NOTES APPLY TO THE SPECIFIC WORK DESCRIBED. NOTES ARE NOT BE SPECIFICALLY INDEXED TO ALL DRAWINGS. COORDINATION IS REQUIRED: | | CG04 GWB CEILINGS – PATCH, REPAIR, AND PREPARE EXISTING GWB "HARD" CEILINGS PAINT PER SPECIFICATIONS. THIS INCLUDES REMOVAL OF NON-ESSENTIAL, ANCHORAGE DEVICES OR APPARATUS AND REPAIR OF ANY RESIDUAL DAMAGE | | ELECTRICAL POWER, LIGHTING, AND VOICE/DATA (COMMUNICATIONS) SYSTEMS: | |
| | FLOOR COVERING AND BASE: | | DOORS, FRAMES, AND DOOR HARDWARE: | | EN01 SEE ELECTRICAL DRAWINGS AND DEMOLITION AND REMODELING NOTES. COORDINATE ALL WORK WITH RELATED TRADES INCLUDING HVAC SYSTEMS REQUIREMENTS. | |
| | FLO1 CAREFULLY REMOVE EXISTING CARPET FLOOR COVERINGS IN PREPARATION FOR REMODELING WORK AND FLOOR COVERING REPLACEMENT. PREPARE FLOORS TO RECEIVE NEW FLOOR COVERINGS INDICATED. CARPET COMPLYING WITH STATE CARPET CONTRACT AGREEMENTS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AS PART OF THIS WORK. | | DF01 PROVIDE AND INSTALL NEW METAL DOOR FRAMES, METAL OR WOOD DOORS, AND HARDWARE WHERE SHOW AND AS SPECIFIED. | | UTARNG TELECOMMUNICATIONS / DATA CABLING MANDATORY REQUIREMENTS: | |
| | FLO2 NEW CARPET SHALL MEET CLEANLY CUT EDGE OF EXISTING CARPET AT CENTERLINE OF EXISTING OR NEW DOORS. | | DF02 REPLACE EXISTING DOOR HARDWARE WHERE SHOWN ON DOOR SCHEDULE AND AS SPECIFIED. | | REQUIRED CONTRACTOR TRAINING: | |
| | FLO3 CAREFULLY REMOVE EXISTING BASE IN PREPARATION FOR REMODELING WORK AND BASE REPLACEMENT. PREPARE SURFACES TO RECEIVE NEW BASE INDICATED. BASE SHALL BE 4-INCH "BLACK" RUBBER WITH ½-TOE RETURN CONFORMING WITH UTANG FACILITY STANDARDS. BASE TO BE PROVIDED AND INSTALLED BY THE CONTRACTOR AS PART OF THIS WORK. | | DF03 REMOVAL OF EXTERIOR DOOR – CAREFULLY REMOVE EXISTING EXTERIOR METAL ENTRANCE DOOR, FRAME AND HARDWARE. BOX AND DELIVER HARDWARE TO OWNER. PREPARE EXISTING OPENING TO RECEIVE NEW IN-FILL CONSTRUCTION. IN-FILL EXISTING OPENING WITH MATERIALS TO MATCH ADJACENT SURFACES ON BUILDING EXTERIOR AS TO TYPE, COLOR, DIMENSION AND FINISH AS FOLLOWS: | | THE CONTRACTOR SHALL BE FULLY CONVERSANT AND CAPABLE IN THE CABLING OF LOW VOLTAGE APPLICATIONS SUCH AS, BUT NOT LIMITED TO DATA, VOICE AND IMAGING NETWORK SYSTEMS. THE CONTRACTOR SHALL AT A MINIMUM POSSES THE FOLLOWING QUALIFICATIONS" | |
| A | WALLS: | | PROVIDE CONCRETE INFILL FROM BOTTOM OF EXISTING DOOR OPENING TO TOP OF EXISTING FOUNDATION BEARING EXTERIOR MASONRY WALL. INSTALL #5 DOWELS AT 12-INCHES O/C DRILLED INTO TOP OF EXISTING FOUNDATION WALL A MINIMUM OF 3-INCHES AND EPOXY ANCHORED. DOWELS TO EXTEND INTO NEW MASONRY A MINIMUM OF 48-INCHES. | | PERSONNEL TRAINED AND CERTIFIED IN THE DESIGN OF THE SIEMON CABLING SYSTEM. | |
| | WN01 TYPICAL NEW WALL CONSTRUCTION: 3.5-INCH 24 GAGE METAL STUDS SPACED AT MAXIMUM 16-INCHES ON CENTER. INSTALL MINIMUM 3.5-INCH ACOUSTICAL BATTS BETWEEN STUDS FROM FLOOR TO CEILING. INSTALL ½-INCH SOUND DEADENING BOARD ANCHORED TO FRAMING ON THE NORTH SIDE OF THE DOOM DIVIDER WALL FACE AND ON THE PERIMETER FACE OF THE NEW VESTIBULE WALLS. INSTALL 5/8-INCH, TYPE "X" GYPSUM WALL BOARD ON BOTH SIDES OVER FRAMING AND SOUND DEADENING BOARD. EXTEND WALL FRAMING AND GWB FINISH TO THE STRUCTURE ABOVE. ANCHOR WALLS TO DECK ABOVE WITH AN EXPANSION CHANNEL AS DETAILED AND TO ADJACENT WALLS IN ACCORDANCE WITH ACCEPTED FRAMING PRACTICES. MATERIALS, FINISHES, AND ALL OTHER CONSTRUCTION REQUIREMENTS SHALL CONFORM WITH DRAWINGS AND SPECIFICATIONS. | | EXTERIOR BRICK SHALL BE "ATLAS" TYPE OF SAME SIZE AND COLOR AS ADJACENT MASONRY. JOINT SIZE, CONTOUR AND MORTAR SHALL MATCH EXISTING. INTERIOR BLOCK SHALL BE OF SAME SIZE, APPROXIMATELY 8" x 8" x 16" UNITS, AS ADJACENT MASONRY. STRIKE INTERIOR MASONRY JOINTS FLUSH. REINFORCING TO BE AS NOTED AND SPECIFIED. | | PERSONNEL TRAINED AND CERTIFIED TO INSTALL THE SIEMON CABLING SYSTEM. | |
| | | | DF04 INSTALLATION OF NEW DOOR IN EXISTING MASONRY WALL. LOCATE POSITION OF NEW DOOR OPENING AS SHOWN ON THE DRAWINGS. VERIFY THAT UNIMPEDED SPACE IS AVAILABLE FOR DOOR INSTALLATION. MINOR LOCATION ADJUSTMENT IS POSSIBLE AS DIRECTED BY THE ARCHITECT. PROTECT TRAFFIC WAY AND CAREFULLY SAW CUT THE NEW OPENING REQUIRED TO INSTALL THE REQUIRED DOOR FRAME. PROVIDE STEEL OPENING SUPPORT MEMBERS AS DETAILED ON THE DRAWINGS. PREPARE FRAME PERIMETER INCLUDING CONCRETE FLOOR SLAB TO RECEIVE NEW FINISH SPECIFIED. | | THE DESIGNER AND INSTALLER SHALL SHOW PROOF OF CURRENT CERTIFICATION OF THE SIEMON CABLING SYSTEM VIA AN UPDATED CARD GIVEN AFTER ATTENDING THE 5 DAY COURSE OR A RE-CERTIFICATION CLASS GIVEN EVERY TWO YEARS. | |
| | | | | | PROVIDE REFERENCES OF THE TYPE OF INSTALLATION PROVIDED IN THIS SPECIFICATION. | |
| | | | | | PERSONNEL TRAINED THE INSTALLATION OF PATHWAYS AND SUPPORT FOR HOUSING HORIZONTAL AND BACKBONE CABLING. | |
| | | | | | SYSTEM WARRANTY | |
| | | | | | A TWENTY (20) YEAR WARRANTY AVAILABLE FOR THE CATEGORY STRUCTURED CABLING SYSTEM SHALL BE PROVIDED FOR AN END-TO-END CHANNEL MODEL INSTALLATION WHICH COVERS APPLICATIONS ASSURANCE, CABLE, CONNECTING HARDWARE AND THE LABOR COST FOR THE REPAIR OR REPLACEMENT THEREOF. | |
| | | | | | UTANG CONTACT MIKE HANSEN (801) 523-4118 FOR ADDITIONAL SPECIFIC INFORMATION. | |
| | 1 | 2 | 3 | 4 | 5 | |

L. K. SORENSEN ASSOCIATES, INC.
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS

3448 SOUTH MAIN STREET
SALT LAKE CITY, UTAH 84115
(801)478-0800 Fax (801)478-0816

CONSULTANTS

MECHANICAL:
ADVANCED CONCEPTS
ENGINEERINGS

ELECTRICAL:
SPECTRUM ENGINEERS

DRAPER ARMY
JOINT
OPERATIONS
CENTER
DRAPER, UTAH

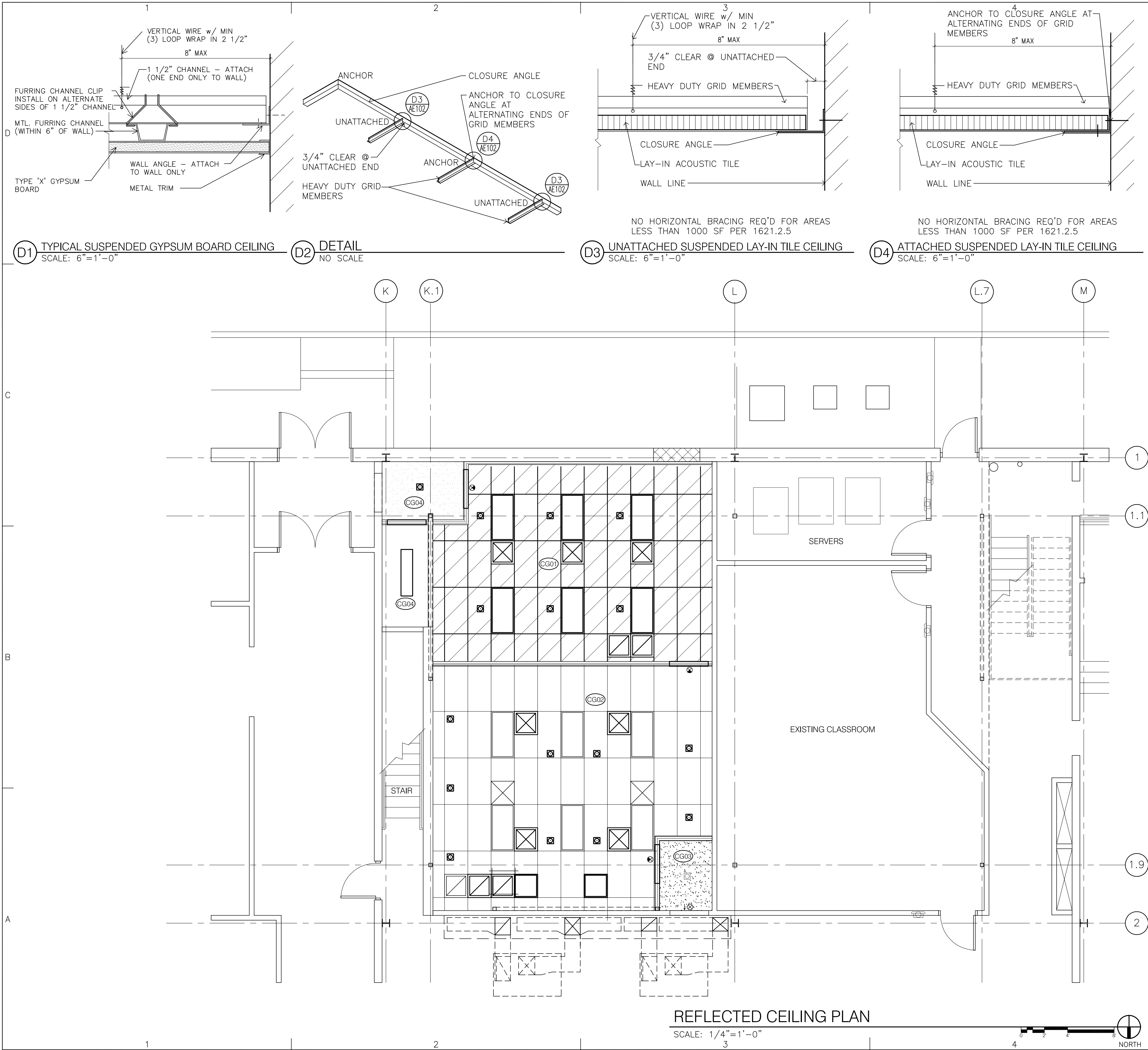
| | | |
|------|----------|-------------------|
| | | |
| | | |
| | | |
| | 05/16/06 | CONTRACT DOCUMENT |
| | 04/28/06 | 100% SUBMITTAL |
| MARK | DATE | DESCRIPTION |

D.F.C.M. PROJECT NO: 06036480
ARCH. PROJECT NO: 0612
CAD DWG FILE:
DRAWN BY: ajs
CHECKED BY: lks
DESIGNED BY: lks
COPYRIGHT:
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO
COPYRIGHT LAWS AND IS THE PROPERTY OF THE STATE OF UTAH
AND SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT
WRITTEN PERMISSION OF THE STATE OF UTAH.

SHEET TITLE

GENERAL
DEMOLITION,
REMODELING &
RENOVATION NOTES

AE001



REFLECTED CEILING LEGEND

NEW 2'x4' SUSPENDED CEILING GRID (CG01)
SEE D4, D3, D2, AE102, AE102, AE102

NEW SUSPENDED GYPSUM CEILING GRID (CG03)
SEE D1, AE102

EXISTING 2'x4' SUSPENDED CEILING GRID TO REMAIN (CG02)

EXISTING GYPSUM CEILING PER NOTES (CG04)

2'x4' RECESSED FLUORESCENT FIXTURE

1'x4' SURFACE-MOUNTED FLUORESCENT FIXTURE

EMERGENCY EXIT LIGHT

RETURN AIR DIFFUSER

SUPPLY AIR DIFFUSER

NOTES:
* SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR LIGHT LOCATION & INFORMATION
** SEE MECHANICAL DRAWINGS AND SPECIFICATIONS FOR GRILLE AND DIFFUSER LOCATION & INFORMATION.

L. K. SORENSEN ASSOCIATES, INC.
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS
3448 SOUTH MAIN STREET
SALT LAKE CITY, UTAH 84115
(801)478-0800 Fax (801)478-0816

CONSULTANTS

MECHANICAL:
ADVANCED CONCEPTS
ENGINEERINGS

ELECTRICAL:
SPECTRUM ENGINEERS

DRAPER ARMORY
JOINT
OPERATIONS
CENTER
DRAPER, UTAH

| | | |
|------|----------|-------------------|
| | | |
| | | |
| | 05/16/06 | CONTRACT DOCUMENT |
| | 04/28/06 | 100% SUBMITTAL |
| MARK | DATE | DESCRIPTION |

D.F.C.M. PROJECT NO: 06036480
ARCH. PROJECT NO: 0612
CAD DWG FILE:
DRAWN BY: ajs
CHECKED BY: lks
DESIGNED BY: lks

COPYRIGHT:
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO
COPYRIGHT LAWS AND IS THE PROPERTY OF THE STATE OF UTAH
AND SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT
WRITTEN PERMISSION OF THE STATE OF UTAH.

SHEET TITLE

REFLECTED
CEILING PLAN /
DETAILS

AE102

| ROOM FINISH SCHEDULE | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|-----------|-------|--------|-------|--------|------------|--------|------------|--------|-----------|--------|-----------|--------|---------|--------|--------|-------|--------|------------|--------|-------|
| ROOM No. | ROOM NAME | FLOOR | | BASE | | NORTH WALL | | SOUTH WALL | | EAST WALL | | WEST WALL | | CEILING | | | DOOR | | DOOR FRAME | | NOTES |
| | | MAT'L | FINISH | MAT'L | FINISH | MAT'L | FINISH | MAT'L | FINISH | MAT'L | FINISH | MAT'L | FINISH | MAT'L | FINISH | HEIGHT | MAT'L | FINISH | MAT'L | FINISH | |
| 101 | VESTIBULE | CPT | A | RB | A | GWB | B | GWB | B | GWB | B | GWB | B | ACST | A | 8'-0" | SCWD | C | MTL | B | FN1 |
| 102 | CLASSROOM | CPT | A | RB | A | GWB | B | GWB | B | GWB | B | GWB | B | ACST | A | 8'-0" | SCWD | C | MTL | B | FN1 |
| 103 | CLASSROOM | CPT | A | RB | A | GWB | B | GWB | B | GWB | B | GWB | B | ACST | A | 8'-0" | SCWD | C | MTL | B | FN1 |
| 104 | VESTIBULE | CPT | A | RB | A | GWB | B | CMU | B | CMU | B | GWB | B | ACST | A | 8'-0" | SCWD | C | MTL | B | FN1 |
| 105 | SIPER | CPT | A | RB | A | GWB | B | GWB | B | CMU | B | GWB | B | ACST | A | 8'-0" | MTL | B | MTL | B | FN1 |
| 106 | VESTIBULE | - | - | - | - | - | - | - | - | - | - | CMU | B | - | - | - | - | - | MTL | B | |
| | | | | | | | | | | | | | | | | | | | | | |

| | |
|--|---|
| FINISH NOTES: FN1 4" RUBBER BASE – COLOR BLACK <u>NOTE THAT ALL NOTES APPLY WHETHER USED ON FINISH SCHEDULE OR LOCATED ELSEWHERE IN PROJECT</u> | FINISHES: A. NO FINISH AFTER INSTALLATION – CLEAN ONLY B. PAINT IN ACCORDANCE WITH THE SPECIFICATIONS. C. STAIN IN ACCORDANCE WITH THE SPECIFICATIONS. D. EPOXY PAINT IN ACCORDANCE WITH THE SPECIFICATIONS. E. LIQUID HARDENER/SEALER IN ACCORDANCE WITH THE SPECIFICATIONS. F. FINISH IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. |
|--|---|

| MATERIAL ABBREVIATIONS: | |
|--|--|
| ACST ACOUSTIC TILE ALUM ALUMINUM CONC CONCRETE CMU CONCRETE MASONRY UNIT CPT CARPET CSV CONDUCTIVE SHEET VINYL FRP FIBERGLASS REINFORCED PANEL | GLS GLASS GWB GYPSUM WALL BOARD MTL METAL N NONE RB RUBBER RPEM RUBBER PARQUET ENTRANCE MAT SCWD SOLID CORE WOOD |
| STRUCT VCT WD | STRUCTURE VINYL COMPOSITION TILE WOOD |

| DOOR & FRAME SCHEDULE | | | | | | | | | | | | | | | | |
|-----------------------|---------------|---------------|------|-------|--------|--------|-------|-------|-------|---------|------|--------|--------------|-------|---------|----------|
| DOOR No. | NEW OR EXIST. | ROOM NAME | DOOR | | | | | FRAME | | | | | HWWARE GROUP | LABEL | REMARKS | |
| | | | TYPE | WIDTH | HEIGHT | THICK. | MAT'L | TYPE | MAT'L | DETAILS | | | | | | |
| | | | | | | | | | | HEAD | JAMB | THRESH | | | | |
| E | EXIST | EXISTING DOOR | | | | | | | | | | | | | | |
| 01 | NEW | VESTIBULE 104 | DT1 | 3'-0" | 7'-0" | 1 3/4" | SCWD | | MTL | B4 | A4 | A5 | HW2 | | | |
| 02 | NEW | SIPER 105 | DT1 | 3'-0" | 7'-0" | 1 3/4" | MTL | | MTL | B3 | A3 | — | HW1 | | | |
| 03 | NEW | CLASSROOM 103 | DT1 | 3'-0" | 7'-0" | 1 3/4" | SCWD | | MTL | B3 | A3 | — | HW2 | | | |
| 04 | NEW | VESTIBULE 101 | DT1 | 3'-0" | 7'-0" | 1 3/4" | SCWD | | MTL | B3 | A3 | — | HW2 | | | |
| 05 | EXIST | VESTIBULE 104 | — | — | — | — | — | | MTL | B3 | A3 | — | | | | DN1, DN2 |
| 06 | EXIST | VESTIBULE 101 | | | | | | | | | | | | | | DN2 |

NOTES:

DN1 RELOCATE EXISTING DOOR & FRAME AS SHOWN ON FLOOR PLAN

DN2 REPLACE HARDWARE AS REQUIRED FOR INSTALLATION OF NEW SECURITY / CONTROL ACCESS HARDWARE. (0F02)



SCALE: $1/4"=1'-0"$

NOTE THAT ALL GENERAL DEMOLITION, REMODELING
AND RENOVATION NOTES APPLY TO THIS PROJECT.
NOTES DESCRIBING SPECIFIC WORK THROUGHOUT
INCLUDE: WF04, FN01, CG04, FN01, MN01, EN01.

MECHANICAL:
ADVANCED CONCEPTS
ENGINEERING

ELECTRICAL:
SPECTRUM ENGINEERS

DRAPER ARMORY
JOINT
OPERATIONS
CENTER
DRAPER, UTAH



| | | |
|------|----------|-------------------|
| | | |
| | | |
| | | |
| | 05/16/06 | CONTRACT DOCUMENT |
| | 04/28/06 | 100% SUBMITTAL |
| MARK | DATE | DESCRIPTION |

| |
|---|
| D.F.C.M. PROJECT NO: 06036480 |
| ARCH. PROJECT NO: 0612 |
| CAD DWG FILE: |
| DRAWN BY: ajs |
| CHECKED BY: lks |
| DESIGNED BY: lks |
| COPYRIGHT: |
| THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO COUNTY LAWS AND TO THE PROPERTY OF THE STATE OF UTAH AND SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION OF THE STATE OF UTAH. |

SHEET TITLE

DOOR & FINISH SCHEDULES / DETAILS

AE601

1 2 3 4 5

K K.1 L L.7 M

Project Intent

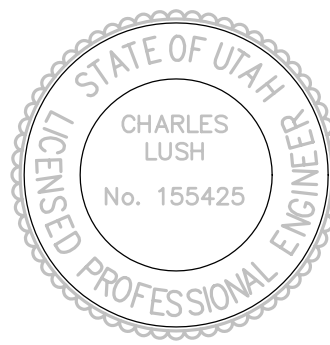
THE EXISTING SPACE IS CONDITIONED BY A HOT WATER FAN COIL WITH D-X COOLING. THE EXISTING FAN COIL IS NOT CAPABLE OF PROVIDING ADEQUATE COOLING FOR THE REMODELED SPACE. THEREFORE, THE FAN COIL, THE CONDENSING UNIT, AND ALL ASSOCIATED PIPING AND DUCTWORK ARE TO BE REMOVED COMPLETELY.

TWO NEW ROOFTOP UNITS ARE TO BE INSTALLED, ONE FOR EACH OF THE TWO NEW ROOMS.

Keyed Reference Notes

- NEW 4.0 TON (NOM) PACKAGED COOLING ONLY CURB MOUNTED ROOFTOP UNIT TO BE INSTALLED ON ROOF ABOVE. COORDINATE EXACT LOCATION WITH EXISTING STRUCTURE. LOCATING AS CLOSE TO BEAM AT GRID 2 AS POSSIBLE AND OFFSETTING DUCTWORK TO MISS BEAM. PROVIDE ALL ROOFING BY ORIGINAL ROOFING MANUFACTURER TO MAINTAIN ROOFING WARRANTY. SEE EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
- PROVIDE NEW DDG TEMPERATURE SENSOR FOR ROOFTOP SYSTEM. INSTALL ON WALL IN THIS LOCATION AT APPROX. 54" A.F.F. SEE M201 FOR TEMPERATURE CONTROLS DESCRIPTION.
- PROVIDE SUPPLY AIR DIFFUSER IN LAY-IN CEILING. 4-WAY BLOW ROUND NECK STEP LOUVER TYPE. STANDARD WHITE FINISH. NECK SIZE EQUALS BRANCH DUCT SIZE. BALANCE TO CFM SHOWN. SEE REFLECTED CEILING PLAN FOR EXACT LOCATION.
- REMOVE BRANCH OUTSIDE AIR DUCT SERVING FAN COIL AND CAP DUCT.
- DROP SUPPLY AND RETURN DUCTS DOWN AT FACE OF WALL. COORDINATE DUCT ROUTING AND LOCATION WITH STRUCTURE, LIGHTING AND OTHER BUILDING SERVICES. FIELD VERIFY EXACT LOCATION.
- LINE SUPPLY AND RETURN AIR DUCTS DROPS FROM CURB MOUNTED PACKAGED UNIT ON ROOF ABOVE WITH 1" THICK ACOUSTICAL DUCT LINER.
- EXISTING FAN COIL UNIT AND RELATED DUCTWORK TO BE REMOVED. RETURN FAN COIL TO OWNER. ALSO REMOVE FOUR 12" ROUND DUCTS THAT RUN THROUGH JOISTS FROM 20" X 14" DUCT TO DIFFUSERS.
- EXISTING CONDENSING UNIT AND RELATED PIPING TO BE REMOVED AND RETURNED TO OWNER. RECLAIM AND/OR CONTAIN REFRIGERANT AS PER EPA STANDARDS.
- 24" X 24" (NOM) EGG-CRATE STYLE RETURN AIR GRILLE IN LAY-IN CEILING. PROVIDE DUCT CONNECTION PLENUM FOR GRILLE. STANDARD WHITE FINISH. SEE REFLECTED CEILING PLAN FOR EXACT LOCATION.
- NEW 3.0 TON (NOM) PACKAGED COOLING ONLY CURB MOUNTED ROOFTOP UNIT TO BE INSTALLED ON ROOF ABOVE. COORDINATE EXACT LOCATION WITH EXISTING STRUCTURE. LOCATING AS CLOSE TO BEAM AT GRID 2 AS POSSIBLE AND OFFSETTING DUCTWORK TO MISS BEAM. PROVIDE ALL ROOFING BY ORIGINAL ROOFING MANUFACTURER TO MAINTAIN ROOFING WARRANTY. SEE EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
- PROVIDE AND INSTALL NEW 12.0 KW, 460 V 3PH ELECTRIC DUCT HEATER IN VERTICAL DUCT DROP APPROX. 13' A.F.F. COORDINATE WITH DUCT ROUTING. MAINTAIN 48" MINIMUM STRAIGHT DUCT SECTION DOWNSTREAM OF HEATER INSTALLATION.
- ROUTE NEW BRANCH DUCTING THROUGH STRUCTURE TO SERVE RELATED DIFFUSERS / GRILLES.
- PROVIDE AND INSTALL NEW 4.0 KW, 460 V 3PH ELECTRIC DUCT HEATER IN VERTICAL DUCT DROP APPROX. 13' A.F.F. COORDINATE WITH DUCT ROUTING. MAINTAIN 48" MINIMUM STRAIGHT DUCT SECTION DOWNSTREAM OF HEATER INSTALLATION.
- REMOVE EXISTING HEATING WATER BRANCH PIPING BACK TO POINT OF CONNECTION AND CAP. FIELD VERIFY EXACT CONDITION.
- PROVIDE AND INSTALL 1-HR DYNAMIC FIRE DAMPER AT DUCT PENETRATION THRU WALL. ALSO PROVIDE AND INSTALL DUCT ACCESS DOOR IN HORIZONTAL DUCT.

L. K. SORENSEN ASSOCIATES, INC.
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS
3449 SOUTH MAIN STREET
SALT LAKE CITY, UTAH 84115
(801)478-0800 Fax (801)478-0816



CONSULTANTS

MECHANICAL:
ADVANCED CONCEPT
ENGINEERING

ELECTRICAL:
SPECTRUM ENGINEERS

DRAPER ARMYORY
JOINT
OPERATIONS
CENTER
CENTER
DRAPER, UTAH



| MARK | DATE | DESCRIPTION |
|------|----------|-------------|
| | 05/15/06 | |

D.F.C.M. PROJECT NO: 06035480
ARCH. PROJECT NO: 0612
CAD DWG FILE:
DRAWN BY: ps
CHECKED BY: cl
DESIGNED BY: ace
COPYRIGHT:
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO
COPYRIGHT LAWS AND IS THE PROPERTY OF THE STATE OF UTAH
AND SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT
WRITTEN PERMISSION OF THE STATE OF UTAH.

SHEET TITLE

MECHANICAL
FLOOR PLAN

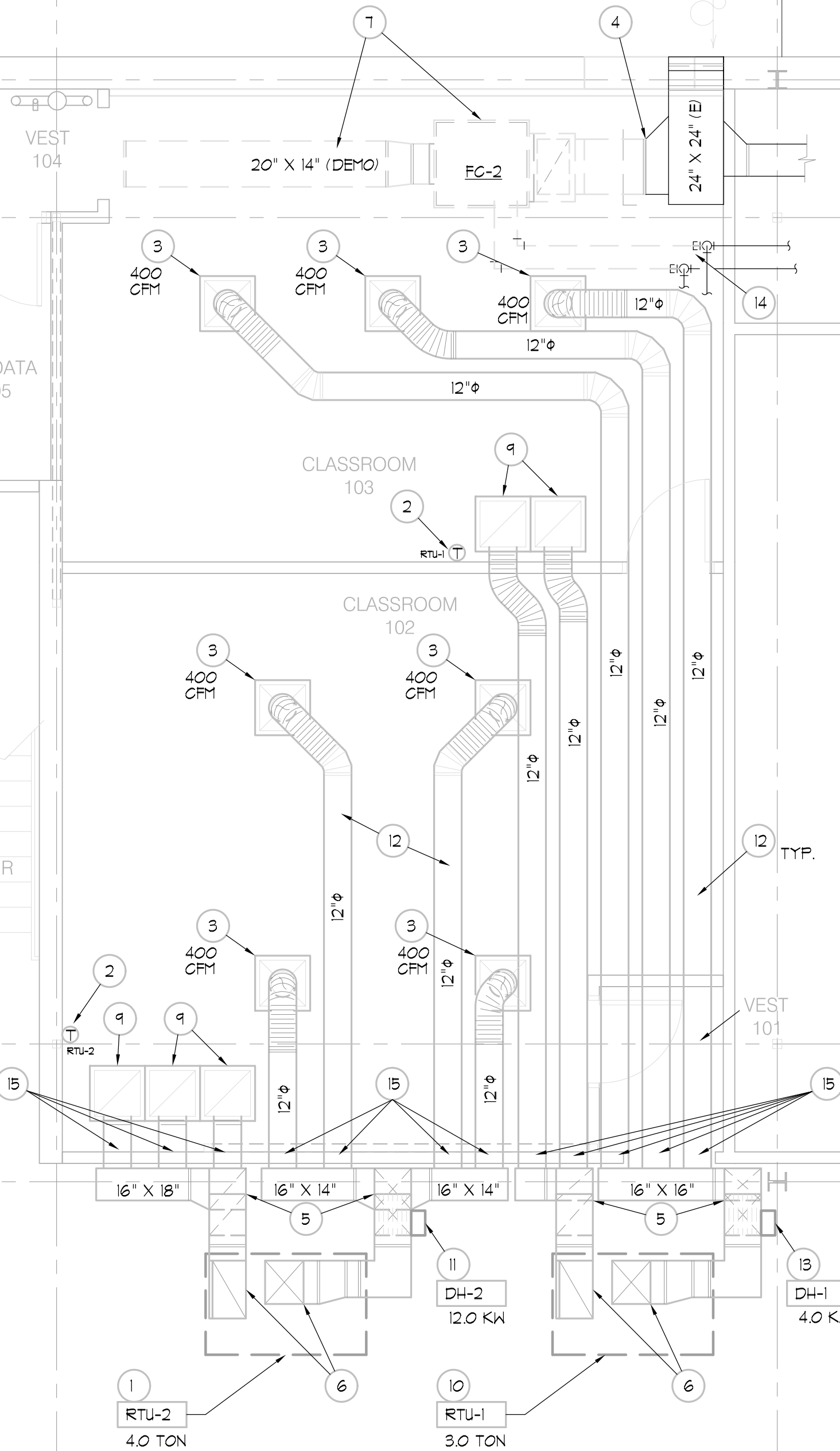
M101

1

1.1

1.9

2



FLOOR PLAN

SCALE: 1/8"=1'-0"

3



NORTH

1

2

4

5

D

- C



A

1

2

3

4

WHEN THERE IS NO CALL FOR HEAT OR COOLING, THE DUCT STAT SHALL CONTROL THE DISCHARGE AIR TEMPERATURE TO 70-DEGREES (ADJUSTABLE) TO PREVENT SUB-COOLING THE SPACE IN THE WINTER BY MEANS OF THE HIGH VOLUME OF VENTILATION AIR.

5

1

1

1

1

A

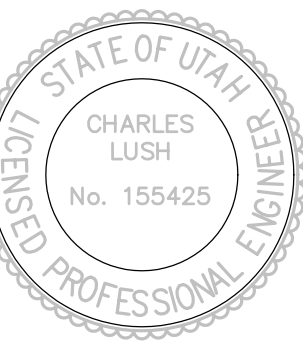
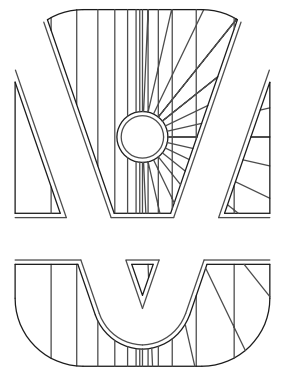
COPYRIGHT:
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO
COPYRIGHT LAWS AND IS THE PROPERTY OF THE STATE OF UTAH
AND SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT
WRITTEN PERMISSION OF THE STATE OF UTAH.

MECHANICAL SCHEDULES

141201

L. K. SORENSEN ASSOCIATES, INC.
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS

3448 SOUTH MAIN STREET
SALT LAKE CITY, UTAH 84115
(801)478-0800 Fax (801)478-0816



| | |
|--|--|
| | |
|--|--|

ELECTRICAL:
SPECTRUM ENGINEERS

DRAPER ARMY
JOINT
OPERATIONS
CENTER
DRAPER, UTAH



File name: P:\2006\20060289\Drawings\Sheet\89EE001.dwg Last Plotted: 05/16/2006 @ 09:53 Bx. Str.

| CONDUCTOR AND CONDUIT SCHEDULE | | | | | | | | | |
|---|------|--------------|------------------------|------|-----|-----|-----|-------|--|
| SCHEDULE NUMBER SUBSCRIPT (NOTE 5) (E.G.) 5 IG | | | | | | | | | |
| SYM | AMP | CONDUIT SIZE | CONDUCTOR (NOTE 1) QTY | SIZE | G | IG | SE | NOTES | |
| 1 | 20 | .75 | 2 | 12 | 12 | 12 | 8 | 2 | |
| 2 | 20 | .75 | 3 | 12 | 12 | 12 | 8 | 2,3 | |
| 3 | 20 | .75 | 4 | 12 | 12 | 12 | 8 | 2,3 | |
| 4 | 30 | .75 | 2 | 10 | 10 | 10 | 8 | 2 | |
| 5 | 30 | .75 | 3 | 10 | 10 | 10 | 8 | 2 | |
| 6 | 30 | .75 | 4 | 10 | 10 | 10 | 8 | 2 | |
| 7 | 40 | 1 | 2 | 8 | 10 | 8 | 6 | 2 | |
| 8 | 40 | 1 | 3 | 8 | 10 | 8 | 6 | 2 | |
| 9 | 40 | 1 | 4 | 8 | 10 | 8 | 6 | 2 | |
| 10 | 55 | 1 | 2 | 6 | 10 | 8 | 4 | 2 | |
| 11 | 55 | 1 | 3 | 6 | 10 | 8 | 4 | 2 | |
| 12 | 55 | 1.25 | 4 | 6 | 10 | 8 | 4 | 2 | |
| 13 | 70 | 1 | 2 | 4 | 8 | 4 | 2 | 2 | |
| 14 | 70 | 1.25 | 3 | 4 | 8 | 4 | 2 | 2 | |
| 15 | 70 | 1.25 | 4 | 4 | 8 | 4 | 2 | 2 | |
| 16 | 85 | 1.25 | 2 | 3 | 8 | 3 | 2 | 2 | |
| 17 | 85 | 1.25 | 3 | 3 | 8 | 3 | 2 | 2 | |
| 18 | 85 | 1.25 | 4 | 3 | 8 | 3 | 2 | 2 | |
| 19 | 95 | 1.25 | 3 | 2 | 8 | 2 | 2 | 2 | |
| 20 | 95 | 1.50 | 4 | 2 | 8 | 2 | 2 | 2 | |
| 21 | 130 | 1.50 | 3 | 1 | 6 | 2 | 2 | 2 | |
| 22 | 130 | 1.50 | 4 | 1 | 6 | 2 | 2 | 2 | |
| 23 | 150 | 2 | 3 | 1/0 | 6 | 2 | 1/0 | 2 | |
| 24 | 150 | 2 | 4 | 1/0 | 6 | 2 | 1/0 | 2 | |
| 25 | 175 | 2 | 3 | 2/0 | 6 | 2 | 2/0 | 2 | |
| 26 | 175 | 2 | 4 | 2/0 | 6 | 2 | 2/0 | 2 | |
| 27 | 200 | 2 | 3 | 3/0 | 6 | 2 | 2/0 | 2 | |
| 28 | 200 | 2.50 | 4 | 3/0 | 6 | 2 | 2/0 | 2 | |
| 29 | 230 | 2.50 | 3 | 4/0 | 4 | 2 | 2/0 | 2 | |
| 30 | 230 | 2.50 | 4 | 4/0 | 4 | 2 | 2/0 | 2 | |
| 31 | 255 | 2.50 | 3 | 250 | 4 | 1 | 2/0 | 2 | |
| 32 | 255 | 2.50 | 4 | 250 | 4 | 1 | 2/0 | 2 | |
| 33 | 310 | 3 | 3 | 350 | 3 | 1/0 | 3/0 | 2 | |
| 34 | 310 | 3 | 4 | 350 | 3 | 1/0 | 3/0 | 2 | |
| 35 | 380 | 3.50 | 3 | 500 | 3 | 3/0 | 3/0 | 2 | |
| 36 | 380 | 4 | 4 | 500 | 3 | 3/0 | 3/0 | 2 | |
| 37 | 400 | 2 EA 2 | 3 | 3/0 | 3 | 3/0 | 3/0 | 2 | |
| 38 | 400 | 2 EA 2.50 | 4 | 3/0 | 3 | 3/0 | 3/0 | 2 | |
| 39 | 510 | 2 EA 2.50 | 3 | 250 | 1 | 4/0 | 3/0 | 2 | |
| 40 | 510 | 2 EA 3 | 4 | 250 | 1 | 4/0 | 3/0 | 2 | |
| 41 | 620 | 2 EA 3 | 3 | 350 | 1/0 | 4/0 | 3/0 | 2,4 | |
| 42 | 620 | 2 EA 3 | 4 | 350 | 1/0 | 4/0 | 3/0 | 2,4 | |
| 43 | 760 | 2 EA 3.50 | 3 | 500 | 1/0 | 4/0 | 3/0 | 2,4 | |
| 44 | 760 | 2 EA 4 | 4 | 500 | 1/0 | 4/0 | 3/0 | 2,4 | |
| 45 | 855 | 3 EA 3 | 3 | 300 | 2/0 | 4/0 | 3/0 | 2,4 | |
| 46 | 855 | 3 EA 3 | 4 | 300 | 2/0 | 4/0 | 3/0 | 2,4 | |
| 47 | 1000 | 3 EA 3.50 | 3 | 400 | 2/0 | 4/0 | 3/0 | 4 | |
| 48 | 1000 | 3 EA 3.50 | 4 | 400 | 2/0 | 4/0 | 3/0 | 4 | |
| 49 | 1140 | 3 EA 4 | 3 | 500 | 3/0 | 4/0 | 3/0 | 4 | |
| 50 | 1140 | 3 EA 4 | 4 | 500 | 3/0 | 4/0 | 3/0 | 4 | |
| 51 | 1240 | 4 EA 3 | 3 | 350 | 3/0 | 4/0 | 3/0 | 4 | |
| 52 | 1240 | 4 EA 3 | 4 | 350 | 3/0 | 4/0 | 3/0 | 4 | |
| 53 | 1675 | 5 EA 3.50 | 4 | 400 | 4/0 | 4/0 | 4/0 | 4 | |
| 54 | 2010 | 6 EA 3.50 | 4 | 400 | 250 | 250 | 250 | 4 | |
| 55 | 2660 | 7 EA 4 | 4 | 500 | 350 | 350 | 350 | 4 | |
| 56 | 3040 | 8 EA 4 | 4 | 500 | 500 | 500 | 500 | 4 | |
| 57 | 4180 | 11 EA 4 | 4 | 500 | 500 | 500 | 500 | 4 | |
| 58 | | 5 EA 4 | | | | | | 6 | |
| 59 | | 5 | | | | | | 6 | |
| 60 | | 10 EA 4 | | | | | | 6 | |
| CONDUCTOR AND CONDUIT SCHEDULE NOTES | | | | | | | | | |
| 1. CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED. | | | | | | | | | |
| 2. PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE. | | | | | | | | | |
| 3. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS. | | | | | | | | | |
| 4. GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS. | | | | | | | | | |
| 5. WHEN SYMBOL SUBSCRIPT INDICATES "IG", INCLUDE "IG" OR INSULATED GROUND CONDUCTOR SCHEDULED ALONG WITH GROUND OR EQUIPMENT GROUND CONDUCTOR. WHEN SYMBOL SUBSCRIPT INDICATES "SE", SUBSTITUTE "SE" CONDUCTOR FOR "G" CONDUCTOR SHOWN WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEMS. | | | | | | | | | |
| 6. RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY. | | | | | | | | | |

| SYMBOL LEGEND | |
|--|--|
| SYMBOL | DESCRIPTION |
| REFERENCE AND LINE SYMBOLS | |
| | DETAIL INDICATOR: A5 INDICATES DETAIL NUMBER, E-501 INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN. |
| | ELEVATION OR SECTION INDICATOR, EXTERIOR: A5 INDICATES ELEVATION OR SECTION NUMBER, E-201 INDICATES DRAWING SHEET WHERE ELEVATION OR SECTION IS SHOWN. |
| | ROOM OR SPACE NUMBER. |
| | KEYNOTE INDICATOR. |
| | REVISION INDICATOR. |
| | EQUIPMENT INDICATOR. |
| | BREAK, STRAIGHT: TO BREAK PARTS OF DRAWING. |
| | BREAK, ROUND. |
| | NEW LINE: MEDIUM LINE. |
| | HIDDEN FEATURES LINE: HIDDEN, THIN LINE. |
| | EXISTING TO REMAIN LINE: THIN LINE. |
| | DEMOLITION LINE: DASHED, MEDIUM LINE. |
| | PROPERTY LINE: DASHED, WIDE LINE. |
| WIRING METHODS | |
| | WIRING. |
| | BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN SECTION 16120. |
| | BRANCH CIRCUIT HOME RUN TO PANELBOARD: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS. LETTER AND NUMBER NOTATIONS IDENTIFY PANEL AND CIRCUIT NUMBERS. NUMBER IN BOX REFERS TO THE CONDUCTOR AND CONDUIT SCHEDULE. FOR BRANCH WIRING USE #12 CONDUCTORS, EXCEPT #10 CONDUCTORS SHALL BE INSTALLED IF DISTANCES EXCEED THOSE SPECIFIED IN SECTION 16120. |
| | WIRING AND/OR RACEWAY: THIN LINE. FA FOR FIRE ALARM, FO FOR FIBER OPTICS, I FOR INTERCOM, P FOR POWER, RC FOR RIGID CONDUIT, S FOR SOUND, T FOR TELEPHONE, TV FOR TELEVISION AND OTHERS AS NOTED IN OTHER SCHEDULES. RACEWAYS AND WIRING SHALL BE SIZED AS SHOWN AND/OR SPECIFIED. |
| | LOW VOLTAGE WIRING: DIVIDE, MEDIUM LINE. |
| | CONDUIT STUB. DIMENSION RECORD DRAWINGS AND MARK. |
| | CONDUCTOR & CONDUIT ("CC") SCHEDULE INDICATOR. REFER TO ONE-LINE DIAGRAM. |
| | JUNCTION BOX. |
| | CABLE TRAY. |
| LIGHTING (REFER TO FIXTURE SCHEDULE FOR SYMBOLS) | |
| | FIXTURE IDENTIFICATION: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. |
| | FIXTURE IDENTIFICATION, EMERGENCY WITH BATTERY PACK, CONNECTED TO GENERATOR AS INDICATED: (W-3) INDICATES FIXTURE TYPE AS SCHEDULED. |
| | EMERGENCY. |
| | NIGHT LIGHT: DO NOT SWITCH. |
| | EGRESS DIRECTION ARROW. |
| LIGHTING CONTROL | |
| | OCCUPANCY SENSOR, DUAL TECHNOLOGY, CEILING. |
| | OCCUPANCY SENSOR SWITCH PACK. |
| STRUCTURED CABLING | |
| | OUTLET, BUILDING STANDARD COMBINATION TELEPHONE/ DATA COMMUNICATION. |
| | TELEPHONE TERMINAL BOARD, FIRE TREATED PLYWOOD PAINTED. |
| ELECTRICAL POWER AND DISTRIBUTION | |
| | DISCONNECT SWITCH, FUSED. |

| SYMBOL LEGEND | |
|----------------|---|
| SYMBOL | DESCRIPTION |
| WIRING DEVICES | |
| | RECEPTACLE, DUPLEX: NEMA 5-20R. |
| | RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R. |
| | RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WEATHERPROOF: NEMA 5-20R. |
| | RECEPTACLE, QUADRUPLE: NEMA 5-20R. |
| | SWITCH, SINGLE POLE ("x" INDICATES FIXTURES CONTROLLED). |
| | SWITCH, THREE-WAY ("x" INDICATES FIXTURES CONTROLLED). |
| | SWITCH, FOUR-WAY ("x" INDICATES FIXTURES CONTROLLED). |
| | SWITCH, DIMMER. |
| FIRE ALARM | |
| | FIRE ALARM MANUAL PULL STATION. |
| | SHUT DOWN RELAY: INSTALL RELAY IN CONTROL CIRCUIT OF EQUIPMENT TO BE CONTROLLED IN THE EVENT OF A FIRE. |
| | DETECTOR, SMOKE. |
| | DETECTOR, HEAT. |
| | ALARM, HORN/STROBE, ONE ASSEMBLY. SUBSCRIPT INDICATES CANDELA RATING. |
| | CCTV CAMERA/ENCLOSURE WITH LENS, TYPICAL. SEE SCHEDULE. |

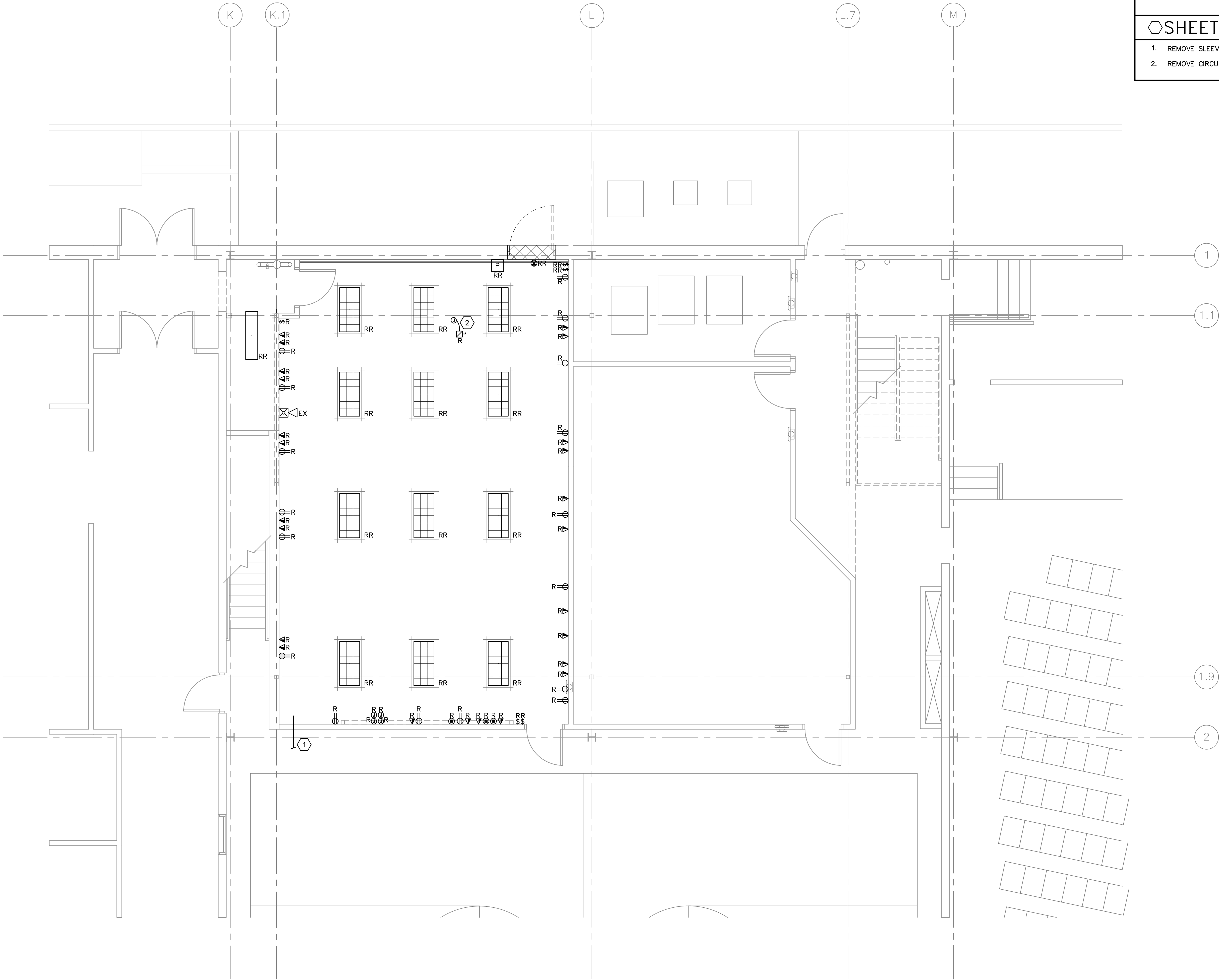
| DEFINITIONS | |
|---|--|
| NOTE: ALL DEFINITIONS MAY NOT BE USED. | |
| INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED. | |
| DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", "AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES. | |
| APPROVE: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS. | |
| FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS." | |
| INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS." | |
| PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE." | |
| INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM. | |
| ELECTRONIC SYSTEMS: THE TERM "ELECTRONIC SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC... | |

| ABBREVIATIONS | | | |
|--|------------------------|-------|------------------------|
| NOTE: ALL ABBREVIATIONS MAY NOT BE USED. | | | |
| 1P | SINGLE POLE | KVAR | KILOVOLT AMPERE |
| 1PH | SINGLE-PHASE | KW | REACTIVE |
| 1WAY | ONE-WAY | KWH | KILOWATT HOUR |
| 2/C | TWO-CONDUCTOR | LED | LIGHT EMITTING DIODE |
| 2WAY | TWO-WAY | LFMC | LIQUID TIGHT FLEXIBLE |
| 3/C | THREE-CONDUCTOR | LFNC | METAL CONDUIT |
| 3PH | THREE-PHASE | | LIQUID TIGHT FLEXIBLE |
| 3WAY | THREE-WAY | | NONMETALLIC CONDUIT |
| 4OUT | QUADRUPLE RECEPTACLE | LPS | LOW PRESSURE SODIUM |
| | OUTLET | LRA | LOCKED ROTOR AMPS |
| 4PDT | FOUR-POLE DOUBLE | LTG | LIGHTING |
| | THROW | LV | LOW VOLTAGE |
| 4PST | FOUR-POLE SINGLE | MATV | MASTER ANTENNA |
| | THROW | | TELEVISION SYSTEM |
| 4W | FOUR-WIRE | MAX | MAXIMUM |
| 4WAY | FOUR-WAY | MC | METAL CLAD |
| AC | ARMORED CABLE | MCA | MINIMUM CIRCUIT AMPS |
| ADA | AMERICANS WITH | MCB | MAIN CIRCUIT BREAKER |
| | DISABILITIES ACT | MCC | MOTOR CONTROL CENTER |
| ADJ | ADJACENT | MCP | MOTOR CIRCUIT |
| AFF | ABOVE FINISHED FLOOR | | PROTECTION |
| AFG | ABOVE FINISHED GRADE | MDP | MAIN DISTRIBUTION |
| AIC | AMPERE INTERRUPTING | | PANEL |
| | CAPACITY | MG | MOTOR GENERATOR |
| ALUM | ALUMINUM | MH | MANHOLE |
| AMP | AMPERE | MIN | MINIMUM |
| ANN | ANNUNCIATOR | MLO | MAIN LUGS ONLY |
| AR | AS REQUIRED | MOCF | MAXIMUM OVERCURRENT |
| ASC | AMPS SHORT CIRCUIT | | PROTECTION |
| ATS | AUTOMATIC TRANSFER | NA | NOT APPLICABLE |
| | SWITCH | NC | NORMALLY CLOSED |
| AV | AUDIO VISUAL | NEC | NATIONAL ELECTRICAL |
| AWG | AMERICAN WIRE GAGE | | CODE |
| BB XFMR | BUCK-BOOST | NEMA | NATIONAL ELECTRICAL |
| | TRANSFORMER | | MANUFACTURERS |
| CATV | COMMUNITY ANTENNA | | ASSOCIATION |
| | TELEVISION | NFC | NATIONAL FIRE |
| CB | CIRCUIT BREAKER | NFFA | NATIONAL FIRE |
| CCBA | CUSTOM COLOR AS | | PROTECTION ASSOCIATION |
| | SELECTED BY ARCHITECT | NIC | NOT IN CONTRACT |
| CCTV | CLOSED CIRCUIT | NL | NIGHT LIGHT |
| | TELEVISION | NO | NORMALLY OPEN |
| CFBA | CUSTOM FINISH AS | NTS | NOT TO SCALE |
| | SELECTED BY ARCHITECT | OC | ON CENTER |
| CF/CI | CONTRACTOR FURNISHED/ | OCF | OVER CURRENT |
| | CONTRACTOR INSTALLED | | PROTECTION |
| CF/OI | CONTRACTOR FURNISHED/ | OF/CI | OWNER FURNISHED/ |
| | OWNER INSTALLED | | CONTRACTOR INSTALLED |
| CKT | CIRCUIT | OF/OI | OWNER FURNISHED/ |
| CM | CONSTRUCTION MANAGER | | OWNER INSTALLED |
| CND | CONDUIT | OFF | OBTAIN FROM PLANS |
| CO | CONVENIENCE OUTLET | OH DR | OVERHEAD (COILING) |
| COR | CONTRACTING OFFICER'S | | DOOR |
| | REPRESENTATIVE | OL | OVERLOAD |
| CP | CONTROL PANEL | PB | PUSHBUTTON |
| CT | CURRENT TRANSFORMER | PF | POWER FACTOR |
| CTV | CABLE TELEVISION | PH | PHASE |
| CU | COPPER | PNL | PANEL |
| dBA | UNIT OF SOUND LEVEL | PT | POTENTIAL TRANSFORMER |
| DPDT | DOUBLE POLE DOUBLE | QTY | QUANTITY |
| | THROW | R | REMOVE |
| DS | DISCONNECT SWITCH | RCF | REFLECTED CEILING PLAN |
| EA | EACH | RMC | RIGID METAL CONDUIT |
| EM | EMERGENCY | RNC | RIGID NONMETALLIC |
| EMT | ELECTRICAL METALLIC | | CONDUIT |
| | TUBING | RPM | REVOLUTIONS PER MINUTE |
| ENT | ELECTRICAL NONMETALLIC | RR | REMOVE AND RELOCATE |
| | TUBING | SCA | SHORT CIRCUIT AMPS |
| EPO | EMERGENCY POWER OFF | SCBA | STANDARD COLOR AS |
| EQUIP | EQUIPMENT | | SELECTED BY ARCHITECT |
| EXIST | EXISTING | SF | SQUARE FOOT (FEET) |
| FA | FIRE ALARM | SFBA | STANDARD FINISH AS |
| FCP | FIRE ALARM CONTROL | | SELECTED BY ARCHITECT |
| | PANEL | SPDT | SINGLE POLE, DOUBLE |
| FLA | FULL LOAD AMPS | | THROW |
| FMC | FLEXIBLE METALCONDUIT | SPEC | SPECIFICATION |
| FOB | FREIGHT ON BOARD | SPST | SINGLE POLE, SINGLE |
| FVNR | FULL VOLTAGE | | THROW |
| | NON-REVERSING | S/S | START/STOP |
| FVR | FULL VOLTAGE REVERSING | ST | SINGLE THROW |
| | GROUND | SWBD | SWITCHBOARD |
| GEN | GENERATOR | SWGR | SWITCHGEAR |
| GFCI | GROUND FAULT CIRCUIT | TL | TWIST LOCK |
| | INTERRUPTER | TP | TELEPHONE POLE |
| GFP | GROUND FAULT | TP | TWISTED PAIR |
| | PROTECTION | TTB | TELEPHONE TERMINAL |
| HD | HEAVY DUTY | | BOARD |
| HID | HIGH INTENSITY | TV | TELEVISION |
| | DISCHARGE | TVSS | TRANSIENT VOLTAGE |
| HOA | HAND-OFF-AUTOMATIC | | SURGE SUPPRESSER |
| HP | HORSE POWER | TYP | TYPICAL |
| HPF | HIGH POWER FACTOR | UF | UNDERFLOOR |
| HPS | HIGH PRESSURE SODIUM | UGND | UNDERGROUND |
| HV | HIGH VOLTAGE | UPS | UNINTERRUPTIBLE POWER |
| HZ | HERTZ | | SUPPLY |
| IG | ISOLATED GROUND | V | VOLTS |
| IMC | INTERMEDIATE METAL | VA | VOLT AMPERE |
| | CONDUIT | VFC | VARIABLE FREQUENCY |
| IN/IS | INSULATED/ISOLATED | | CONTROLLER |
| I/O | INPUT/OUTPUT | W/ | WITH |
| IR | INFRARED | W/O | WITHOUT |
| KV | KILOVOLT | WP | WEATHERPROOF |
| KVA | KILOVOLT AMPERE | XFMR | TRANSFORMER |

GENERAL ELECTRICAL NOTES

- CLARIFICATION METHODS: AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS, MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS, CATALOG NUMBER DISCRE

File name: P:\2006\20060289\Drawings\Sheet\89ED101.dwg Last Plotted: 05/16/2006 @ 09:53 By: STS



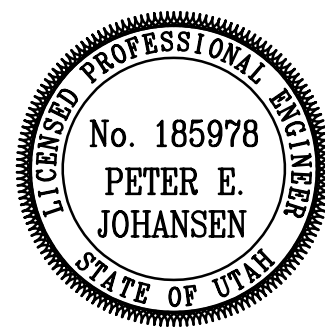
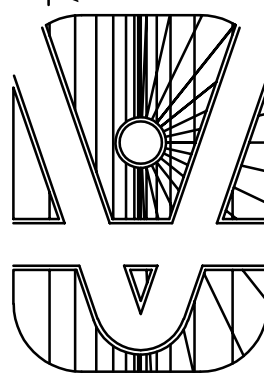
GENERAL SHEET NOTES

1. EITHER REUSE OR REMOVE ALL ABANDONED VOICE/DATA CABLING ABANDONED DURING DEMOLITION.

SHEET KEYNOTES

1. REMOVE SLEEVE FOR VOICE/DATA CABLING.
2. REMOVE CIRCUITING AND DISCONNECT FOR EXISTING FAN COIL UNIT.

L.K. SORENSEN ASSOCIATES, INC.
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS
3448 SOUTH MAIN STREET
SALT LAKE CITY, UTAH 84115
(801)478-0800 Fax (801)478-0816



CONSULTANTS

MECHANICAL:
ADVANCED CONCEPTS
ENGINEERINGS

ELECTRICAL:
SPECTRUM ENGINEERS

JOINT
OPERATIONS
CENTER
DRAPER COMPLEX
DRAPER, UTAH



| MARK | DATE | DESCRIPTION |
|------|------|-------------|
| | | |
| | | |
| | | |
| | | |
| | | |

PROJECT NO: 0612
DATE: 01 MAY 2006
CAD DWG FILE:
DRAWN BY: STS
CHECKED BY: PEJ
DESIGNED BY: PEJ

COPYRIGHT:
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO
COPYRIGHT LAWS AND IS THE PROPERTY OF L.K. SORENSEN
ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER
PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE

DEMOLITION
PLAN

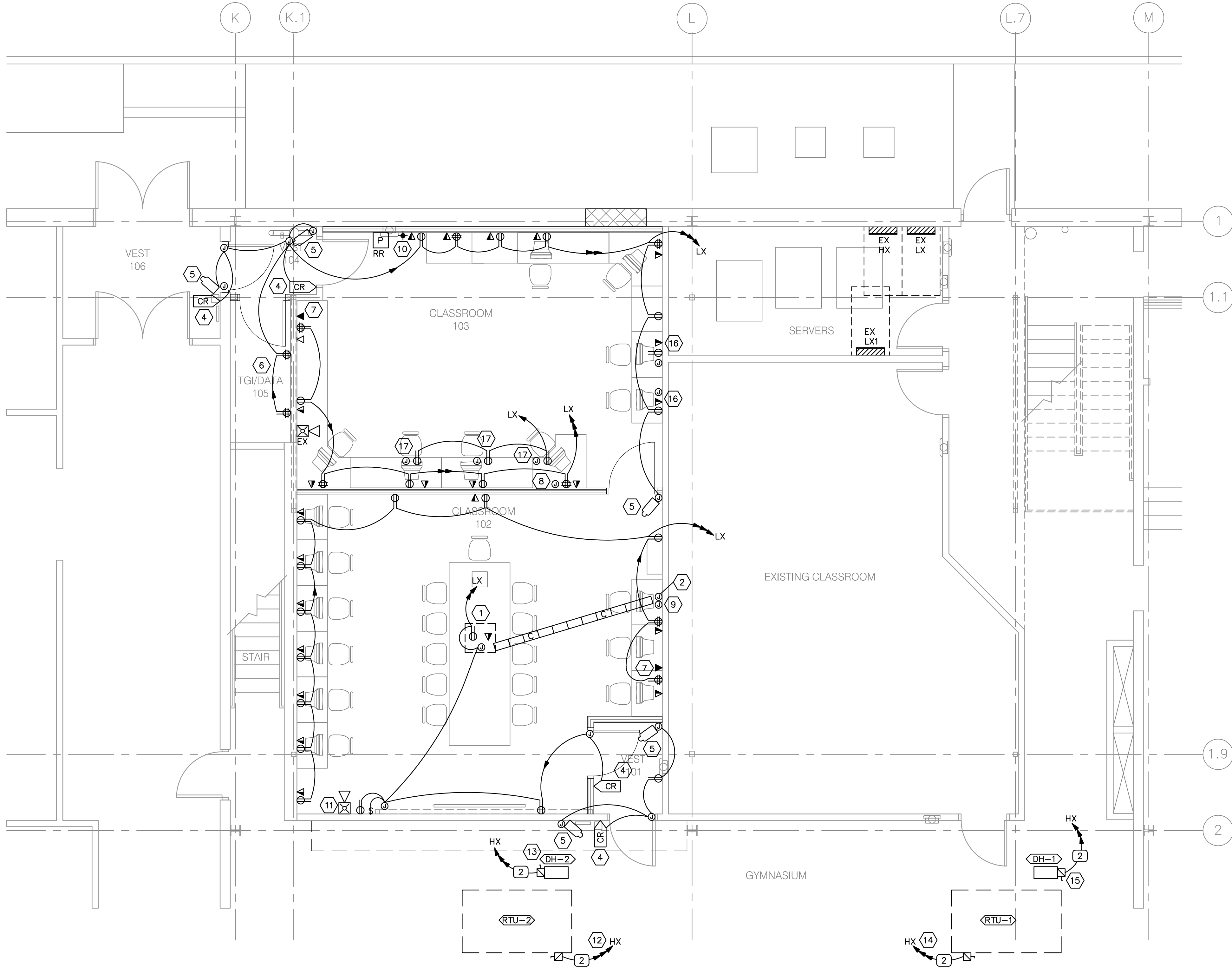
ED101

DEMOLITION PLAN

SCALE: $\frac{1}{4}'' = 1' - 0''$



File name: P:\2006\20060289\Drawings\Sheet\89EP101.dwg Last Plotted: 05/16/2006 @ 09:53 By: STS



POWER PLAN
SCALE: 1/4"=1'-0"



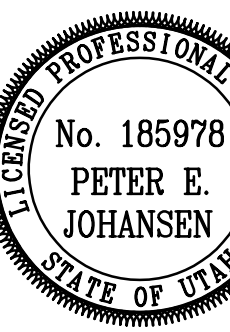
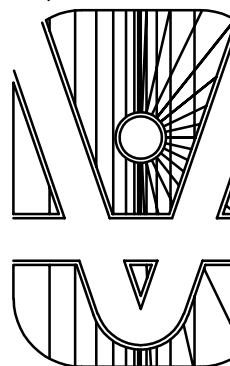
GENERAL SHEET NOTES

- IF SPACE RUNS OUT IN PANEL LX, THERE ARE SIX SPACES LEFT IN PANEL LX1. PROVIDE SIX 20/1 AMP BREAKERS FOR EXISTING BRANCH PANEL.
- ROOF TOP UNITS WILL BE FED FROM BELOW UNIT TO AVOID ADDITIONAL ROOF PENETRATIONS. COORDINATE WITH DIVISION 15.

SHEET KEYNOTES

- 120V RECEPTACLE, VOICE/DATA JACK AND DOUBLE GANG J-BOX FOR CEILING MOUNTED PROJECTOR. RUN 12" WIDE CABLE TRAY TO 1" CONDUIT STUBBED UP FROM DOUBLE GANG J-BOX LOCATED IN WALL AT CONTROL STATION.
- DOUBLE GANG J-BOX FOR A/V CABLES. STUB 1" CONDUIT FROM J-BOX TO 12" ABOVE CEILING.
- POWER FOR AUTO SCREEN.
- PROVIDE 120V POWER TO CARD READER TRANSFORMER. RUN A 1" CONDUIT FROM THE CARD READER (INSIDE THE WALL) TO 12" ABOVE CEILING FOR LOW VOLTAGE WIRING.
- PROVIDE CONCEALED POWER TO CAMERAS. RUN 1" CONDUIT THROUGH THE WALL (ABOVE THE CEILING) TO A POINT 2'-0" FROM VESTIBULE WALL INSIDE WORKROOM AREA.
- LOCATION OF SIPER. RUN TWO 1" CONDUITS CONTAINING ON BLUE CAT6 CABLE AND ONE YELLOW CAT6 CABLE FROM SIPER RACK TO THE SIPER LOCATION IN EACH WORK ROOM. SEE KEYED NOTE #7.
- SIPER UNIT LOCATION.
- DOUBLE GANG BOX FOR CAMERA MONITOR. STUB A 1.25" CONDUIT FROM J-BOX TO 12" ABOVE CEILING.
- DOUBLE GANG J-BOX AND 1" CONDUIT STUBBED 12" ABOVE CEILING FOR SPEAKER CABLING.
- PROVIDE A 4" CONDUIT FROM THE RADIO RACK UP INSIDE A FURRED WALL IN TO THE CEILING SPACE AND THEN TO THE EXISTING DUCT CHASE TO ABOVE THE ROOF FOR CABLE ROOF MOUNTED ANTENNA. THE CONDUIT EXTENSION THROUGH THE ROOF MUST PROJECT AT LEAST 24" AND HAVE A WEATHER AND PEST PROOF COVER, AND HARDWARE REQUIRED TO MOUNT UTANG PROVIDED ANTENNA. COORDINATE WITH ARCHITECTS DRAWINGS.
- PROVIDE NEW FIRE ALARM HORN/STROBE CIRCUIT TO EXISTING ANNUNCIATING LOOP.
- LOCATED ON ROOF PROVIDE A 30/3 FRS-15 AMP HEAVY DUTY FUSED DISCONNECT. PROVIDE A 20/3 AMP BREAKER FOR PANEL HX.
- 12KW DUCT HEATER. MOUNT A 30/3 FRS-20 HEAVY DUTY FUSED DISCONNECT ON EXTERIOR OF DUCT. PROVIDE A 20/3 AMP BREAKER FOR PANEL HX.
- LOCATED ON ROOF PROVIDE A 30/3 FRS-15 AMP HEAVY DUTY FUSED DISCONNECT. PROVIDE A 20/3 AMP CIRCUIT BREAKER IN PANEL HX.
- 4KW DUCT HEATER. MOUNT A 30/3 FRS-10 HEAVY DUTY FUSED DISCONNECT TO SIDE OF DUCT. PROVIDE A 20/3 AMP CIRCUIT BREAKER IN PANEL HX.
- PROVIDE A SINGLE GANG J-BOX AT 15" A.F.F. AND A 1" CONDUIT STUBBED FROM J-BOX TO ABOVE ACCESSIBLE CEILING FOR S-VIDEO CABLE.
- PROVIDE A POWER OUTLET AND A J-BOX WITH 1" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING FOR S-VIDEO CABLE AT +66" A.F.F. COORDINATE WITH LOCATION OF THREE PLASMA SCREENS.

L.K. SORESENSEN ASSOCIATES, INC.
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS
3448 SOUTH MAIN STREET
SALT LAKE CITY, UTAH 84115
(801)478-0800 Fax (801)478-0816



CONSULTANTS

MECHANICAL:
ADVANCED CONCEPTS
ENGINEERING

ELECTRICAL:
SPECTRUM ENGINEERS

JOINT
OPERATIONS
CENTER
DRAPER COMPLEX
DRAPER, UTAH



| MARK | DATE | DESCRIPTION |
|------|------|-------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

PROJECT NO: 0612
DATE: 01 MAY 2006
CAD DWG FILE:
DRAWN BY: STS
CHECKED BY: PEJ
DESIGNED BY: PEJ

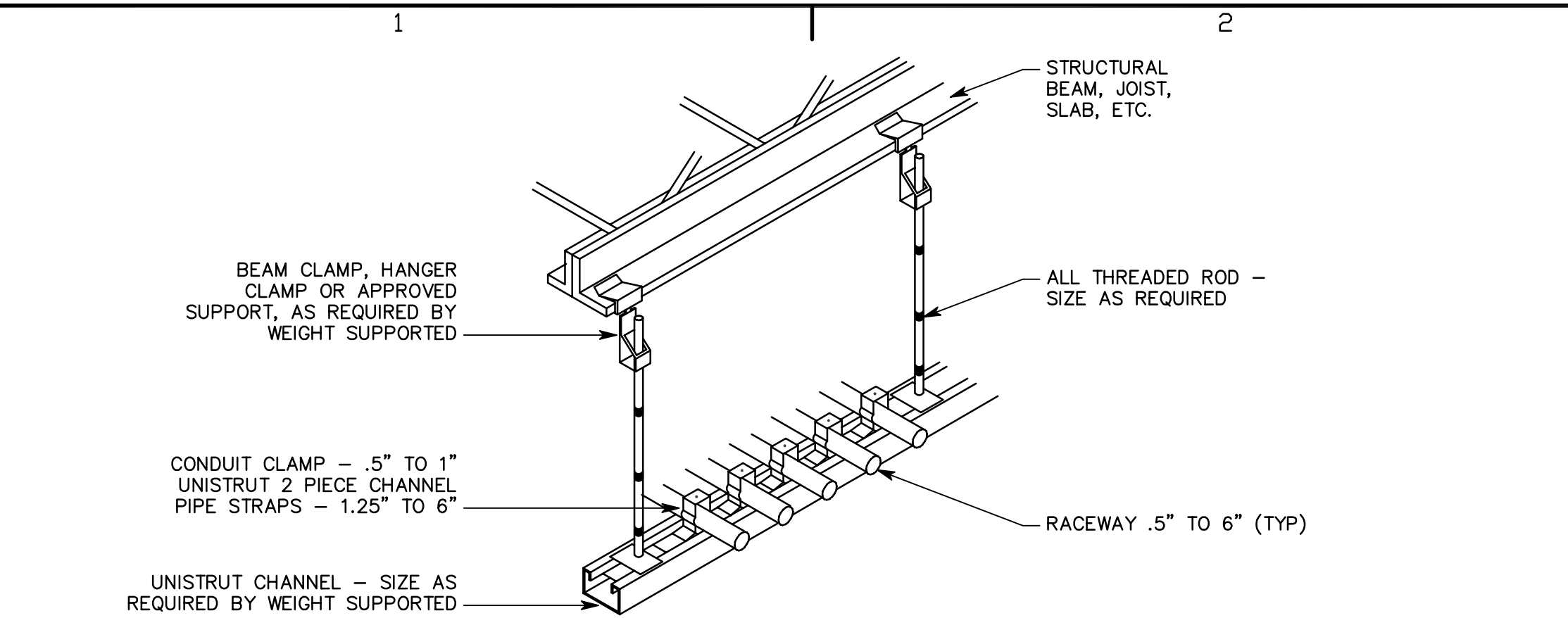
COPYRIGHT:
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO
COPYRIGHT LAWS AND IS THE PROPERTY OF L.K. SORESENSEN
ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER
PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE

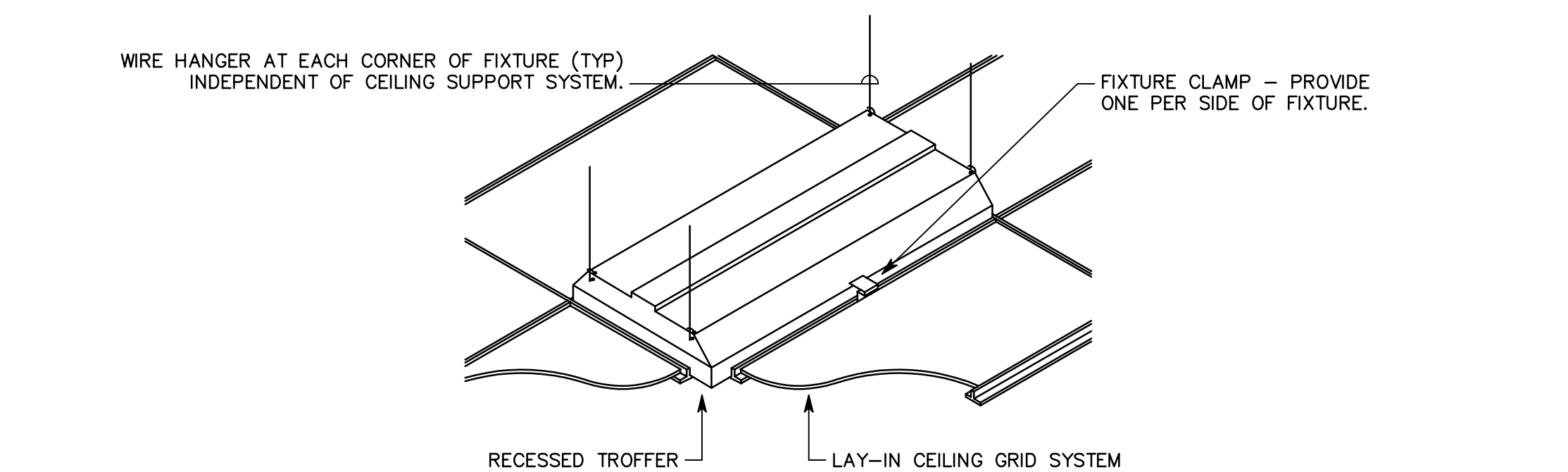
POWER PLAN

EP101

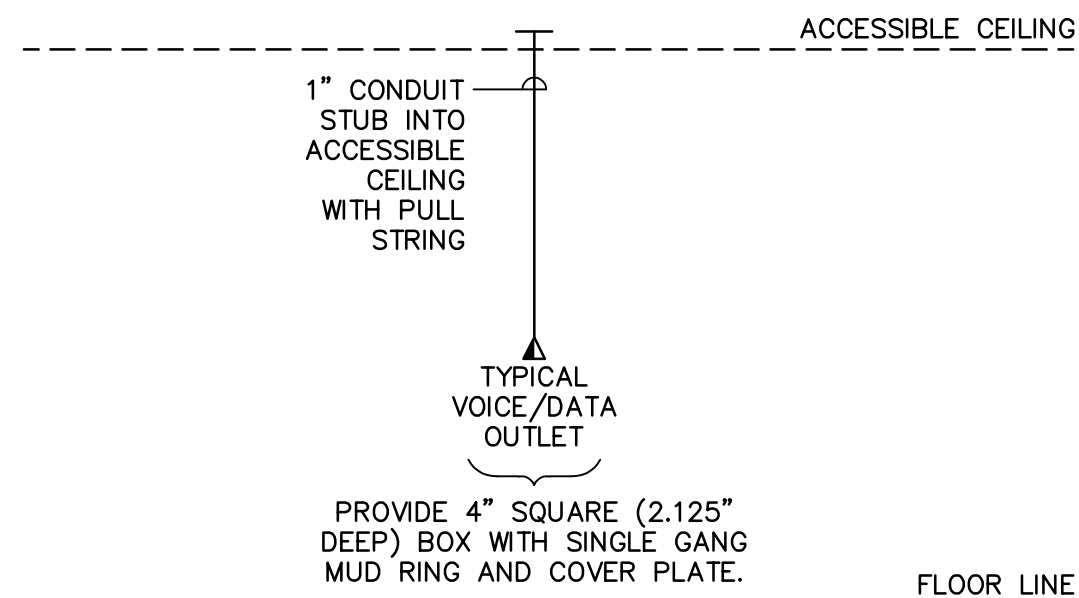
File name: P:\2006\20060289\Drawings\Sheet\89EP501.dwg Last Plotted: 05/16/2006 @ 09:53 By: STS



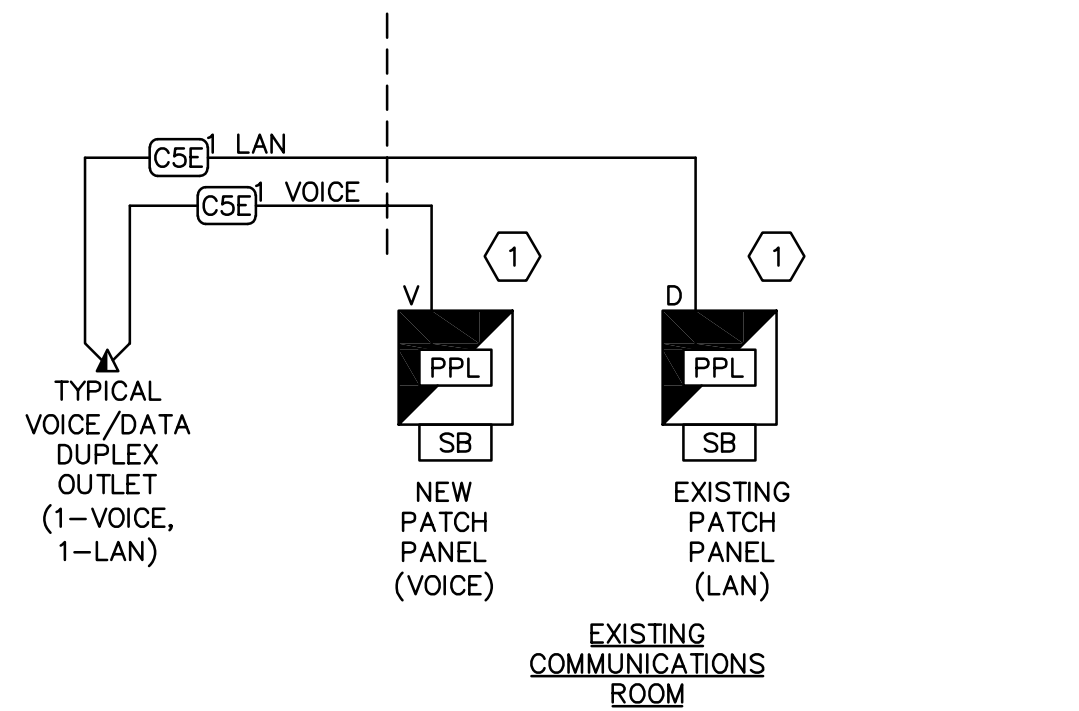
D1 TYPICAL CONDUIT RACK DETAIL
NTS



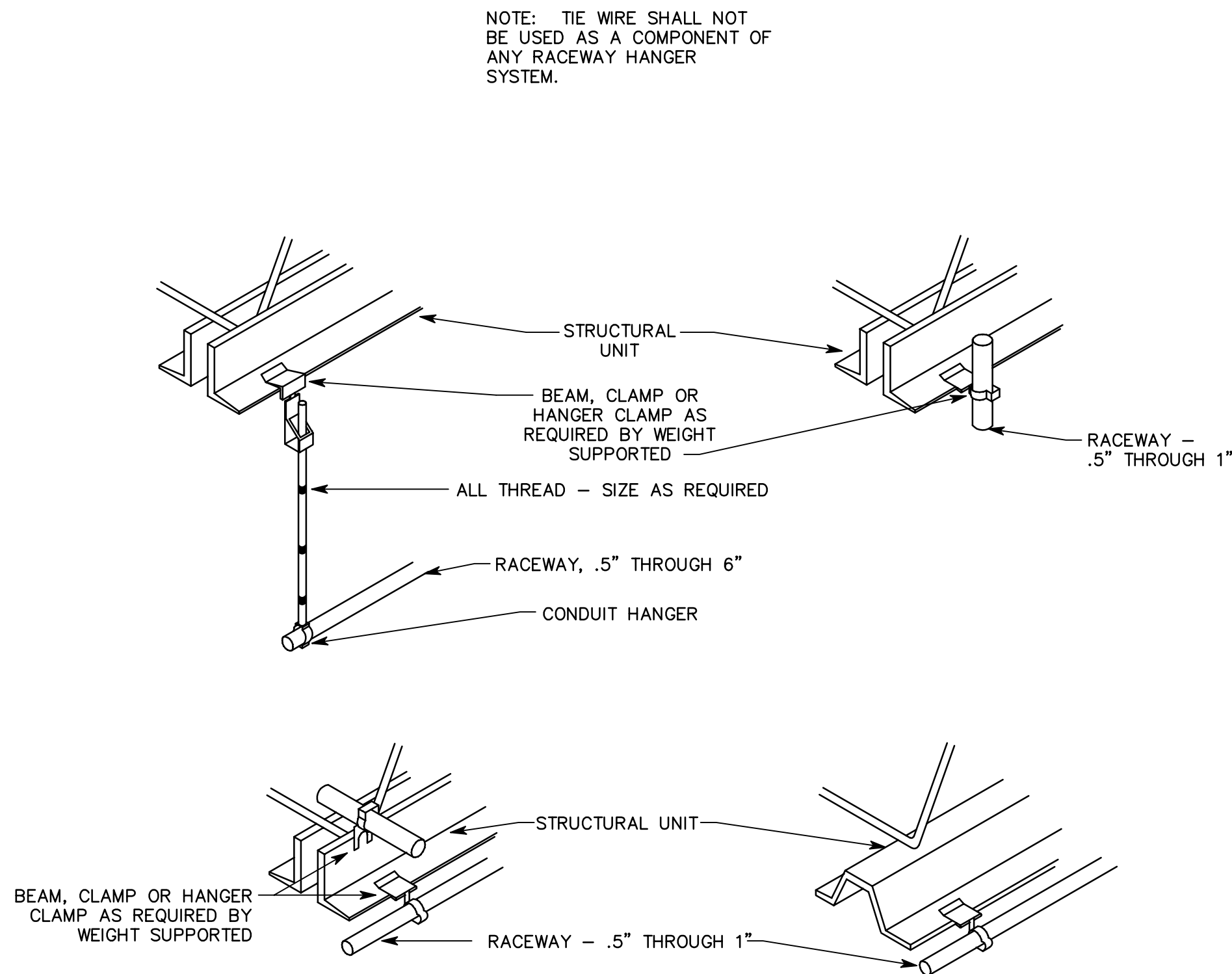
C1 RECESSED FIXTURE MOUNTING DETAIL
NTS



B1 VOICE/DATA RACEWAY RISER DIAGRAM
NTS

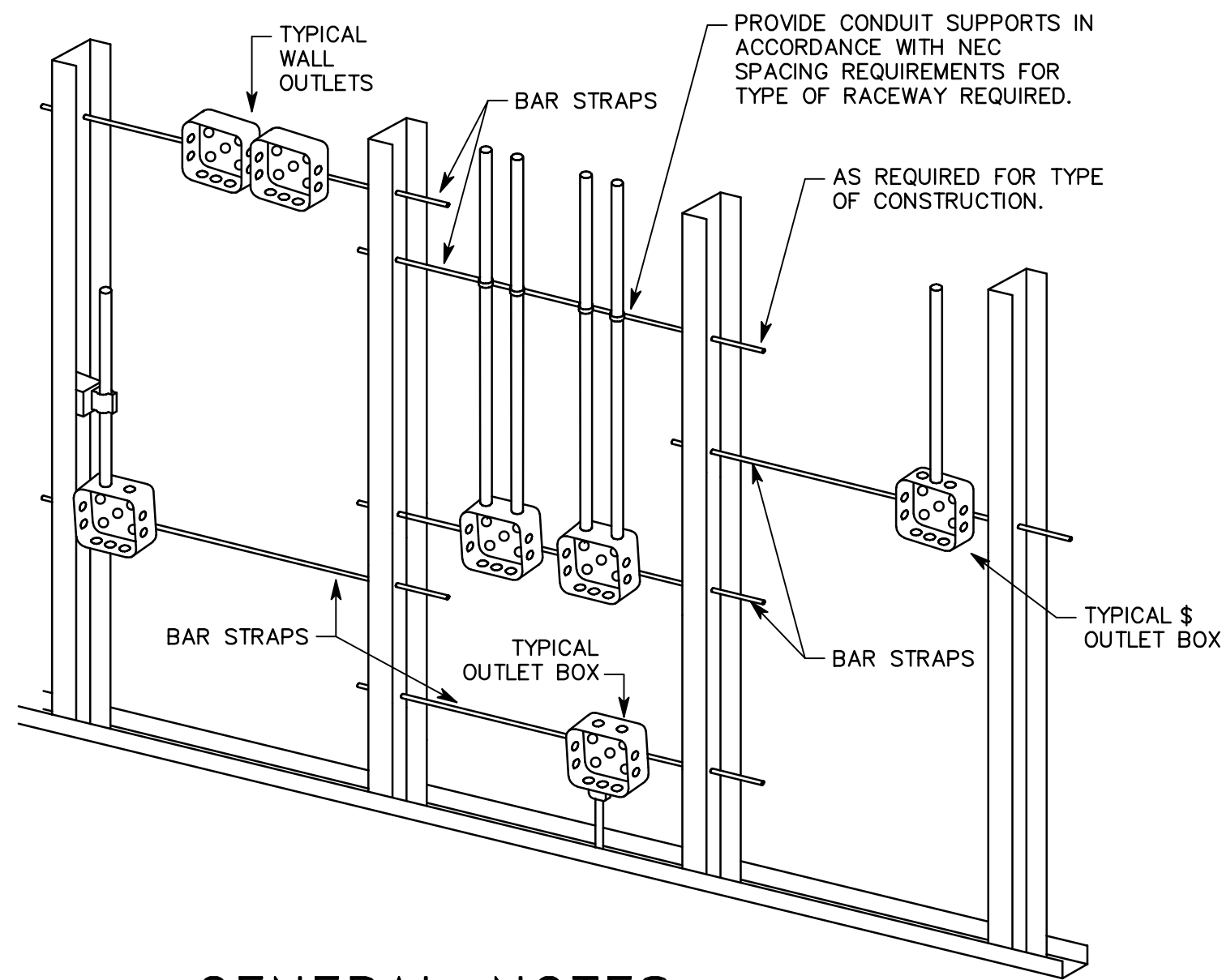


A1 TELECOMMUNICATIONS CABLING RISER DIAGRAM
NTS



A2 TYPICAL RACEWAY SUPPORT METHODS DETAIL
NTS

| TELEPHONE/DATA EQUIPMENT/CABLE LIST | | |
|-------------------------------------|--------------------------------------|--|
| SYMBOL | ITEM DESCRIPTION | MANUFACTURERS |
| X CSE VOICE | VOICE CABLING, CATEGORY 5E | COMMSCOPE CAT 5E BLUE ('X' INDICATES QUANTITY) |
| X CSE DATA | DATA CABLING, CATEGORY 5E | COMMSCOPE CAT 5E YELLOW ('X' INDICATES QUANTITY) |
| PPL | PATCH PANEL | SIEMON HD5-89D-12 |
| ■ V | BLUE METAL BACKBOARD (VOICE) | M183-B2 (VAR) |
| ■ D | YELLOW METAL BACKBOARD (DATA) | M183-B2 (VAR) |
| SB | FULL SPOOL BOARDS | M187-B1 (VAR) |
| ▼ | WORK STATION OUTLET (1-LAN, 1-VOICE) | SIEMON CT-C5-C5-02 (ANGLED JACK) SIEMON CT2-FP-02 (FACEPLATE) |



GENERAL NOTES

1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOWN.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. IN ACCORDANCE WITH IBC 711.3.2 EXCEPTION 1, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE IN A RATED FIRE SEPARATION WALL MUST BE SEPARATED BY A MINIMUM OF 24" HORIZONTAL DISTANCE.
5. IN NON-RATED WALLS, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE SEPARATED BY 16" FOR SOUND ATTENUATION.

SHEET KEYNOTES

1. FIELD VERIFY EXISTING EQUIPMENT IN COMM ROOM AND COORDINATE WITH UTAH NATIONAL GUARD NEW EQUIPMENT REQUIRED FOR EXPANSION OF SERVICE WITH MIKE HANSEN (523-4118). PRIOR TO BID.

TELECOMMUNICATIONS CABLING – GENERAL NOTES

1. ALL WORK SHALL BE IN COMPLIANCE WITH UTNG STANDARD UT-GG-C (2003).
2. ALL WORK SHALL BE COORDINATED WITH MIKE HANSEN (UTNG).
3. THE CONTRACTOR SHALL BE FULLY CONVERSANT AND CAPABLE IN THE CABLING OF LOW VOLTAGE APPLICATIONS SUCH AS, BUT NOT LIMITED TO DATA, VOICE AND IMAGING NETWORK SYSTEMS. THE CONTRACTOR SHALL AT A MINIMUM POSSES THE FOLLOWING QUALIFICATIONS:

PERSONNEL TRAINED AND CERTIFIED IN THE DESIGN OF THE SIEMON CABLING SYSTEM.

PERSONNEL TRAINED AND CERTIFIED TO INSTALL THE SIEMON CABLING SYSTEM.

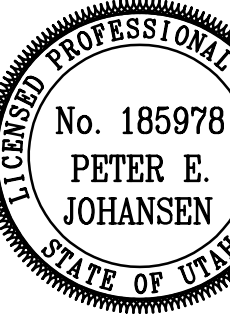
THE DESIGNER AND INSTALLER SHALL PROOF OF CURRENT CERTIFICATION OF THE SIEMON CABLING SYSTEM VIA AND UPDATED CARD GIVEN AFTER ATTENDING THE 5-DAY COURSE OR A RE-CERTIFICATION CLASS GIVEN EVERY TWO YEARS.

PROVIDE REFERENCES OF THE TYPE OF INSTALLATION PROVIDED IN THIS SPECIFICATION.

PERSONNEL TRAINED AND CERTIFIED IN FIBER OPTIC CABLING, SPLICING, TERMINATION AND TESTING TECHNIQUES. PERSONNEL MUST HAVE EXPERIENCE USING A LIGHT METER AND OTDR.

PERSONNEL TRAINED AND CERTIFIED IN THE INSTALLATION OF PATHWAYS AND SUPPORT FOR HOUSING HORIZONTAL AND BACKBONE CABLING.
4. A TWENTY (20) YEAR WARRANTY AVAILABLE FOR THE CATEGORY – STRUCTURED CABLING SYSTEM SHALL BE PROVIDED FOR AN END-TO-END CHANNEL MODEL INSTALLATION WHICH COVERS APPLICATIONS ASSURANCE CABLE, CONNECTING HARDWARE AND THE LABOR COST FOR THE REPAIR OR REPLACEMENT THEREOF.

L.K. SORENSEN ASSOCIATES, INC.
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS
3448 SOUTH MAIN STREET
SALT LAKE CITY, UTAH 84115
(801)478-0800 Fax (801)478-0816



CONSULTANTS

MECHANICAL:
ADVANCED CONCEPTS
ENGINEERINGS

ELECTRICAL:
SPECTRUM ENGINEERS

JOINT
OPERATIONS
CENTER
DRAPER COMPLEX
DRAPER, UTAH



| MARK | DATE | DESCRIPTION |
|------|------|-------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| | |
|---|-------------|
| PROJECT NO: | 0612 |
| DATE: | 01 MAY 2006 |
| CAD DWG FILE: | |
| DRAWN BY: | STS |
| CHECKED BY: | PEJ |
| DESIGNED BY: | PEJ |
| COPYRIGHT: THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO COPYRIGHT LAWS AND IS THE PROPERTY OF L.K. SORENSEN ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT. | |

SHEET TITLE

DETAILS

EP501

File name: P:\2006\20060289\Drawings\Sheet\89EP502.dwg Last Plotted: 05/16/2006 @ 09:52 By: SJS

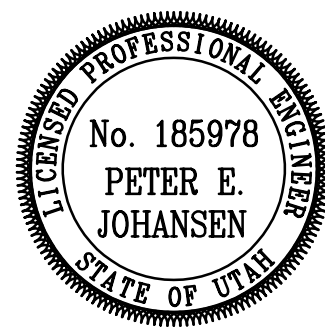
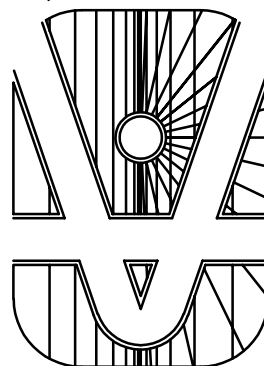
GENERAL
SHEET NOTES

1. DETERMINE MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE FOLLOWING ORDER OF PRIORITY:
1 - ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).
2 - EQUIPMENT SHOP DRAWINGS.
3 - FIELD INSTRUCTIONS.
2. LOCATE RECEPTACLES SERVING THE SAME TYPE OF USE AT A UNIFORM HEIGHT UNLESS DIRECTED OTHERWISE.
3. MECHANICAL, ELECTRICAL, AND COMMUNICATION ROOMS: COORDINATE LOCATION OF LIGHTING AND POWER RECEPTACLES WITH EQUIPMENT, PIPING, AND DUCTWORK. DO NOT INSTALL RECEPTACLES BEHIND EQUIPMENT OR WHERE OTHERWISE INACCESSIBLE. POSITION LIGHTING REGARDLESS OF WHERE SHOWN ON DRAWING TO PROVIDE PROPER ILLUMINATION.
4. MOUNT RECEPTACLE BOXES FOR SWITCHES AND RECEPTACLES WITH LONG AXIS OF THE DEVICE VERTICAL UNLESS OTHERWISE INDICATED.
5. SET BOXES WITH PLASTER RINGS FLUSH WITH FINISHED SURFACE.
6. LOCATE BOX COVERS OR DEVICE PLATES SO THEY WILL NOT SPAN DIFFERENT TYPES OF BUILDING FINISHES EITHER VERTICALLY OR HORIZONTALLY.
7. VERIFY ALL DOOR CONDITIONS ON ARCHITECTURAL DRAWINGS PRIOR TO INSTALLING SWITCHES.
8. LOCATE WIRING DEVICES WHICH ARE ADJACENT AND ARE COMPATIBLE VOLTAGES IN ONE PLATE.

SHEET KEYNOTES

1. LOCATE RECEPTACLES BEHIND DRINKING FOUNTAINS.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.

L.K. SORENSEN ASSOCIATES, INC.
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS
3448 SOUTH MAIN STREET
SALT LAKE CITY, UTAH 84115
(801)478-0800 Fax (801)478-0816



CONSULTANTS

MECHANICAL:
ADVANCED CONCEPTS
ENGINEERING

ELECTRICAL:
SPECTRUM ENGINEERS

JOINT
OPERATIONS
CENTER
DRAPER COMPLEX
DRAPER, UTAH



| | | |
|------|------|-------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| MARK | DATE | DESCRIPTION |

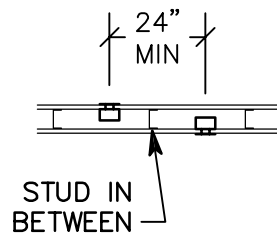
PROJECT NO: 0612
DATE: 01 MAY 2006
CAD DWG FILE:
DRAWN BY: STS
CHECKED BY: PEJ
DESIGNED BY: PEJ

COPYRIGHT:
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO
COPYRIGHT LAWS AND IS THE PROPERTY OF L.K. SORENSEN
ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER
PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE

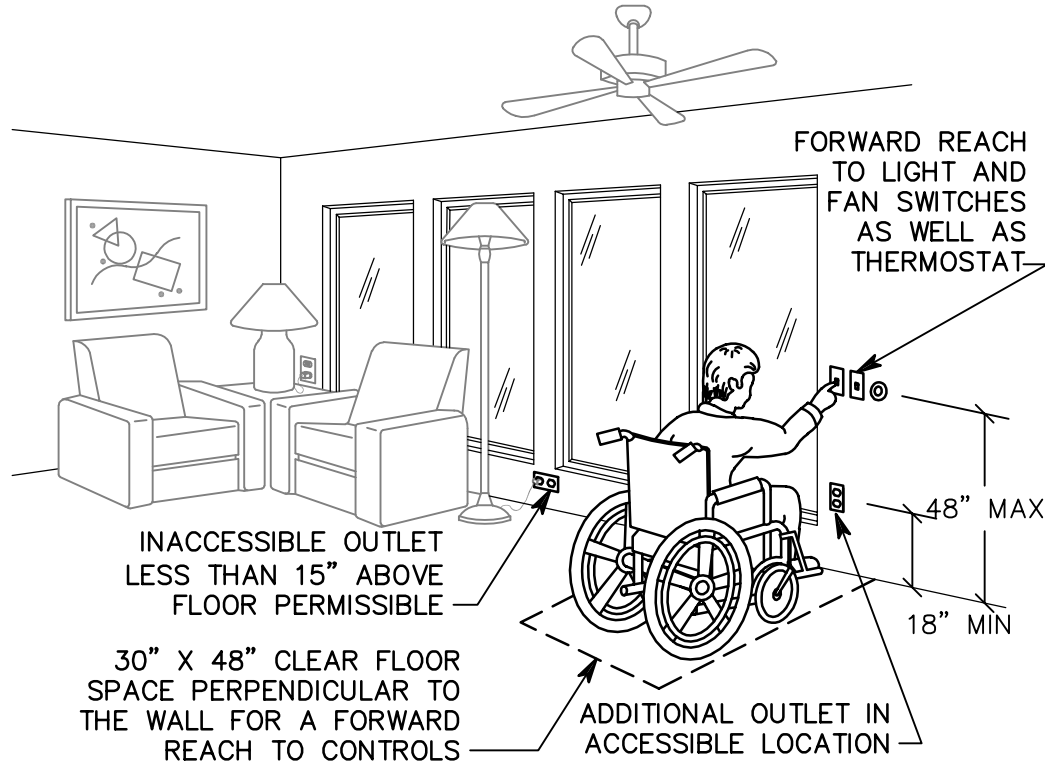
DETAILS

EP502

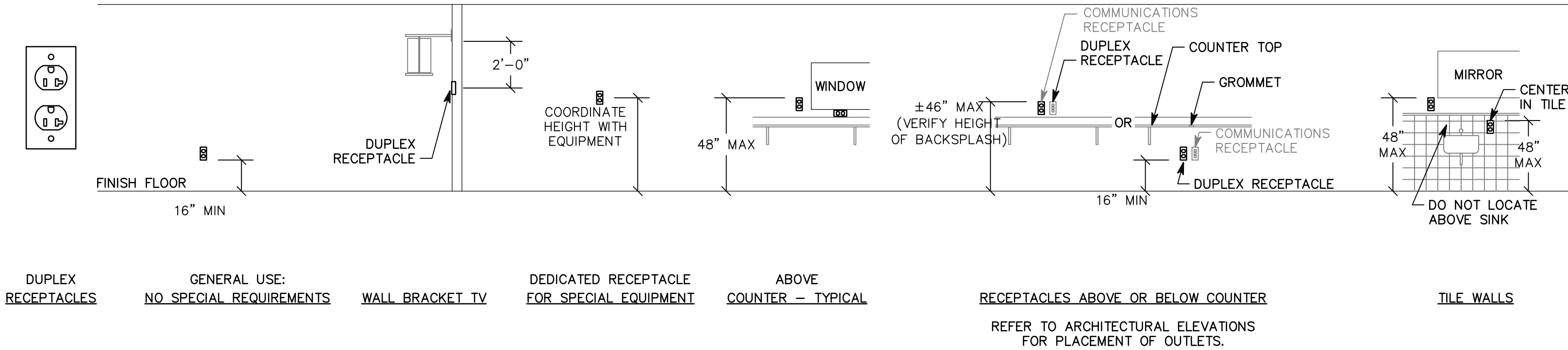


BOXES ON OPPOSITE SIDES OF WALL

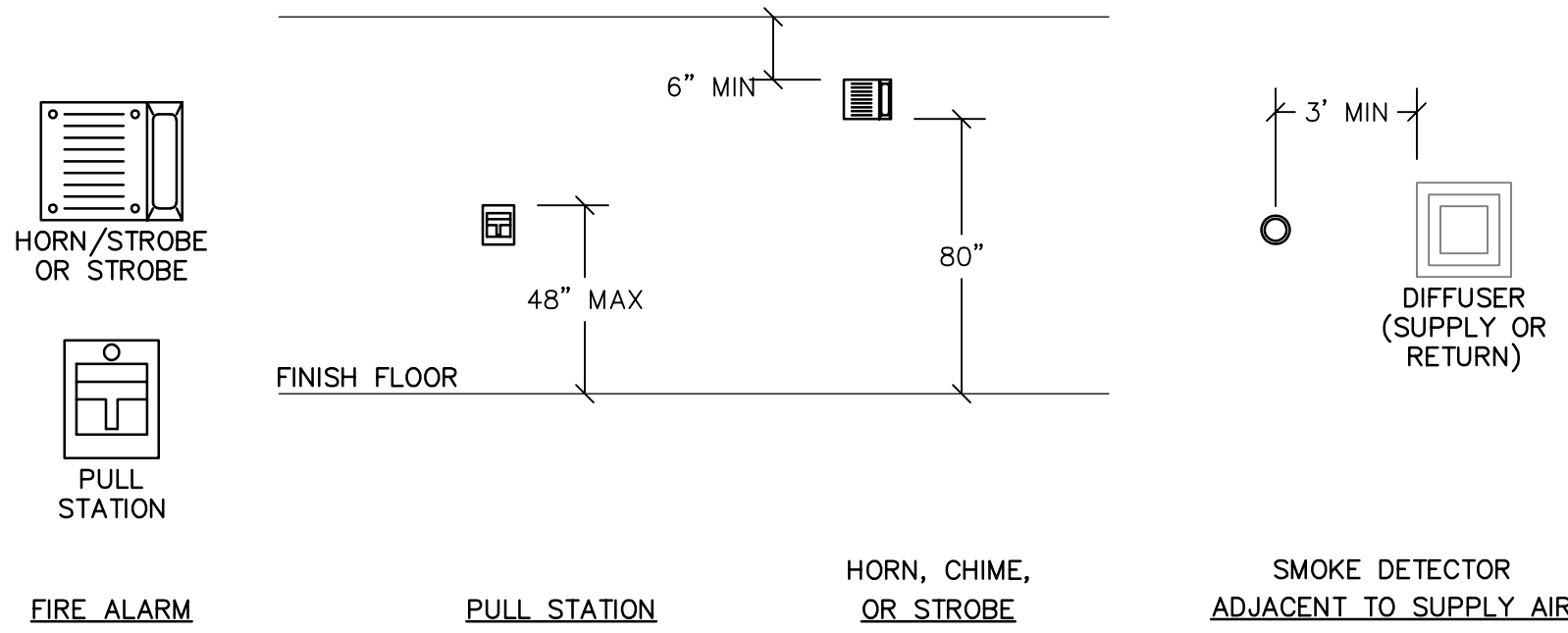
B1 BOX MOUNTING
DETAILS
NTS



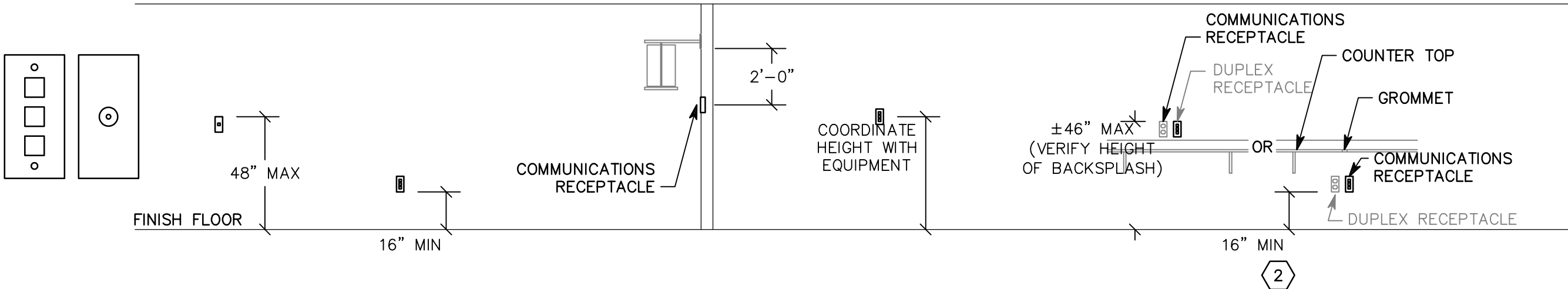
B2 ADA DETAIL
NTS



B3 RECEPTACLE MOUNTING DETAILS
NTS

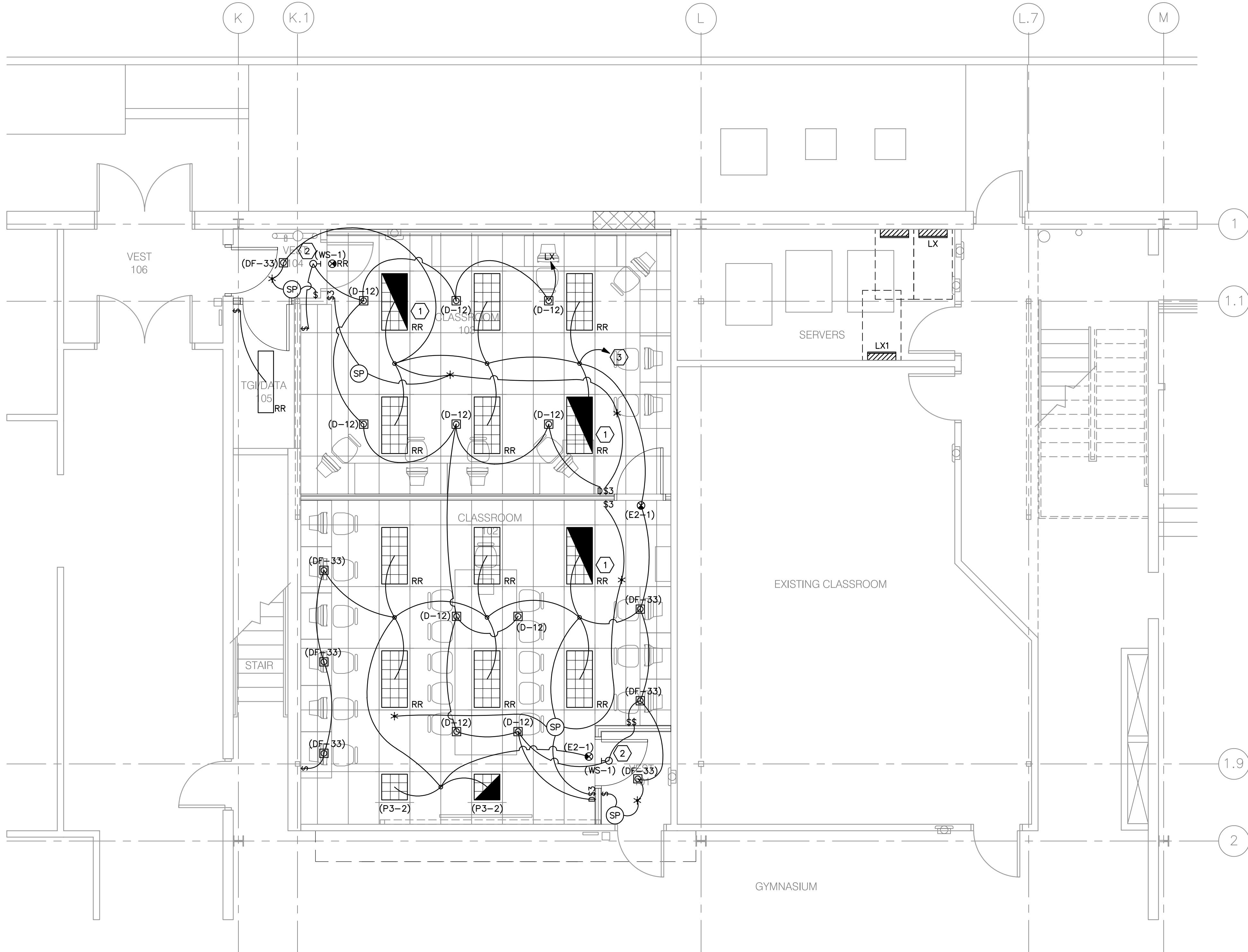


A1 FIRE ALARM MOUNTING DETAILS
NTS



A3 COMMUNICATION MOUNTING DETAILS
NTS

File name: P:\2006\20060289\Drawings\Sheet\89EL101.dwg Last Plotted: 05/16/2006 @ 09:53 By: Sts



LIGHTING PLAN
SCALE: 1/4"=1'-0"



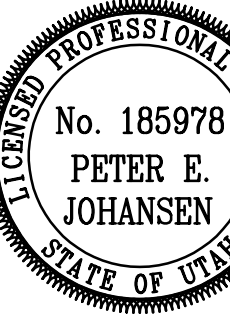
GENERAL SHEET NOTES

- DO NOT SWITCH EMERGENCY LIGHTS OR EXIT SIGNS.

SHEET KEYNOTES

- ADD BATTERY PACK IN RELOCATED FIXTURE.
- RED WARNING LIGHT.
- CIRCUIT TO LIGHTING CIRCUIT WHICH PREVIOUSLY FED RELOCATED LIGHTS.

L.K. SORENSEN ASSOCIATES, INC.
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS
3448 SOUTH MAIN STREET
SALT LAKE CITY, UTAH 84115
(801)478-0800 Fax (801)478-0816



CONSULTANTS

MECHANICAL:
ADVANCED CONCEPTS
ENGINEERING

ELECTRICAL:
SPECTRUM ENGINEERS

JOINT
OPERATIONS
CENTER
DRAPER COMPLEX
DRAPER, UTAH



| MARK | DATE | DESCRIPTION |
|------|------|-------------|
| | | |
| | | |
| | | |
| | | |
| | | |

PROJECT NO: 0612
DATE: 01 MAY 2006
CAD DWG FILE:
DRAWN BY: STS
CHECKED BY: PEJ
DESIGNED BY: PEJ

COPYRIGHT:
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO
COPYRIGHT LAWS AND IS THE PROPERTY OF L.K. SORENSEN
ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER
PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE

LIGHTING PLAN

EL101

File name: P:\2006\20060289\Drawings\Sheet\89EL601.dwg Last Plotted: 05/16/2006 @ 09:53 By: STS

D

C

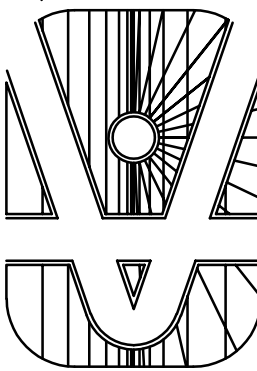
B

A

LIGHTING FIXTURE SCHEDULE

| | | | | | | | | | |
|---|--|-----------------------------|------------|---|--|--|--|--|-------|
| NOTE TO BIDDERS: COMPLY WITH SECTIONS 16511, 16521, AND 16570 OF THE SPECIFICATIONS. REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR LIGHTING FIXTURES, BALLASTS, AND LAMPS. THE CATALOG NUMBERS LISTED BELOW HAVE BEEN CAREFULLY PREPARED TO ASSIST BIDDERS IN SELECTING PRODUCTS TO ACHIEVE THE DESIGN CONCEPT, HOWEVER, PRIOR TO BIDDING, EACH MANUFACTURER SHALL COMPARE THE CATALOG NUMBERS SHOWN WITH THE DESCRIPTION AND REQUIREMENTS ON THE DRAWINGS, AND SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES. SPECIFICALLY INCLUDED IN THIS EVALUATION SHALL BE THE VERIFYING OF PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS. NO ALLOWANCE OR REDRESS WILL BE ALLOWED FOR DISCREPANCIES THAT WERE NOT REPORTED TO THE ARCHITECT/ENGINEER IN TIME FOR CORRECTION OR CLARIFICATION BEFORE THE BID. THE REPORTING OF ANY AMBIGUITY IS THE RESPONSIBILITY OF THE BIDDER. PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE CHANGES FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY THE PRODUCTS AND EMPOWER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM THE CONTRACTOR OR INSTALLER. SUBMITTAL PACKAGE SHALL INCLUDE LAMP MANUFACTURER AND CATALOG NUMBER ON EACH FIXTURE SHEET. ON ALL PENDANT MOUNTED FIXTURES, PROVIDE A SECOND SET OF PENDANTS, OF A DIFFERENT LENGTH, AS DIRECTED BY THE ARCHITECT/ENGINEER, PROVIDED AND INSTALLED AT NO ADDITIONAL CHARGE. ALL FIXTURES SHALL BE APPROVED BY UL OR ANOTHER ACCEPTABLE TESTING LAB FOR THE PURPOSE INTENDED AND WITH THE LAMP AND BALLAST PROPOSED. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES. UNIVERSAL VOLTAGE (120/277) BALLASTS REQUIRED UNLESS NOTED OTHERWISE. | | | | | | | | | |
| FIXTURE CHARACTERISTICS | | | | | | | | | |
| SYMBOL | MARK | LENS/LOUVER/REFLECTOR/OTHER | LAMP | WATTS | VOLTS | MANUFACTURER CATALOG NUMBER | | | NOTES |
| D | DOWNLIGHT; THERMALLY PROTECTED HOUSING; TO ACCOMMODATE MULTIPLE ALUMINUM TRIMS AND REFLECTOR ASSEMBLIES AS LISTED BELOW; MAX 8" DEEP, NON-IC HOUSINGS EXCEPT AS NOTED. | | | | | | | | |
| D-12 | WHITE BAFFLE, MAX 75R30 LAMP. | 75R30 | 75W | 120V | PRESCOLITE HALO INFINITY LITHONIA CAPRI LIGHTOLIER | PBX TBW15 H7T-310W R60 75 (PAR30/MED) MB(WHT) BH LP6 6B3W CRI-RM30W 1102-P1/1176 WH | | | |
| DF | FLUORESCENT DOWNLIGHT; THERMALLY PROTECTED HOUSING: TO ACCOMMODATE MULTIPLE TRIMS AND REFLECTOR ASSEMBLIES FOR LAMPS AS LISTED BELOW; ELECTRONIC BALLASTS; LOW IRIDESCENT REFLECTOR FINISH (EVEN IF NOT SHOWN IN CATALOG #); SELF FLANGING TRIM UNLESS NOTED. | | | | | | | | |
| DF-33 | RECESSED DOWNLIGHT; 7-8" APERTURE, HORIZONTAL, 32W CF-AMALGAM LAMP, CLEAR. | 1-CF-A32 50W RE835 | 277/120V | PORTFOLIO INFINITY LIGHTOLIER LITHONIA OMEGA PRESCOLITE | C7132E-7151LI PH75 132T-EB (GX24Q-3) 277 BH 8037CLW/7132BU AF 1/32TRT 8AR MVOLT S81H32-U-T81H-CS CFT832HEB-STF802H | | | | |
| E | E PREFIX INDICATES THAT FIXTURE IS PROVIDED WITH AN EMERGENCY BATTERY PACK TO PROVIDE POWER TO ANY 2, 3, 4 OR 8 FOOT FLOURESCENT LAMP COMPATIBLE WITH ALL STANDARD AND ELECTRONIC BALLASTS; COMPLETELY SELF-CONTAINED TO PROVIDE 90 MINUTES OF EMERGENCY POWER TO FIXTURE BALLAST; MINIMUM LIGHT OUTPUT FOR TYPICAL 4' LAMP SHALL BE 1100 LUMENS OR HIGHER;UNIVERSAL TRANSFORMER FOR 120 OR 277 VOLTS; LOW VOLTAGE PROTECTION, COMBINATION TEST SWITCH AND AC "ON" INDICATOR; 10 YEAR PRO-RATA WARRANTY; INSTALL TEST SWITCH IN A MANNER THAT REQUIRES NO DISASSEMBLY FOR TESTING. | | | | | | | | |
| E | EMERGENCY BATTERY PACK. | | 120/277V3W | IOTA BODINE LITHONIA PRESCOLITE EELP CHLORIDE LIGHTOLIER SIDELITE | I-80 B50 PS-1400 EFPS-5 EB1400 (CONTRACTOR INSTALLED) CFP841 FBP50 S60F | | | | |
| E1 | EXIT SIGN: THERMOPLASTIC HOUSING; UNIVERSAL MOUNTING; UNIVERSAL ARROWS PER PLANS; EMERGENCY BATTERY PACK WITH 10 YEAR PRO-RATA WARRANTY; LED, DIFFUSE LENS PANEL; GREEN LETTERS ON WHITE BACKGROUND. MUST MEET NFPA ILLUMINATION STANDARDS. | | | | | | | | |
| E1-1 | SINGLE FACE: | LED | 1W | 120/277V | MCPHILBEN DUAL-LITE EELP LITHONIA SURE-LITES DAY-BRITE CHLORIDE LIGHTOLIER | CXXL-1-GW LXSGWE XE 1 GW EM LQM S W 1 G 120/277 ELN LPX70DGW CXL-1-GW-EM SLN1GW LTN1GW | | | |
| WS | WALL SCONCES, AS SHOWN AND DESCRIBED HEREIN, VISUAL APPROVAL REQUIRED. MOUNT AS SHOWN ON ARCHITECTURAL DRAWINGS. ELECTRONIC BALLASTS. | | | | | | | | |
| WS-1 | RED LED FLASHING DOME LIGHTTS. Provide a 120-12 volt transformer Provide a threaded mounting plate and 2" pole to mount light to wall | | 6W | 12V | Federal Signal Corporation | FS252654 Or equivalent. | | | |

L.K. SORENSEN ASSOCIATES, INC.
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS
3448 SOUTH MAIN STREET
SALT LAKE CITY, UTAH 84115
(801)478-0800 Fax (801)478-0816



CONSULTANTS

MECHANICAL:
ADVANCED CONCEPTS
ENGINEERING

ELECTRICAL:
SPECTRUM ENGINEERS

JOINT
OPERATIONS
CENTER
DRAPER COMPLEX
DRAPER, UTAH



| | | |
|------|------|-------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| MARK | DATE | DESCRIPTION |

| | |
|---------------|-------------|
| PROJECT NO: | 0612 |
| DATE: | 01 MAY 2006 |
| CAD DWG FILE: | |
| DRAWN BY: | STS |
| CHECKED BY: | PEJ |
| DESIGNED BY: | PEJ |

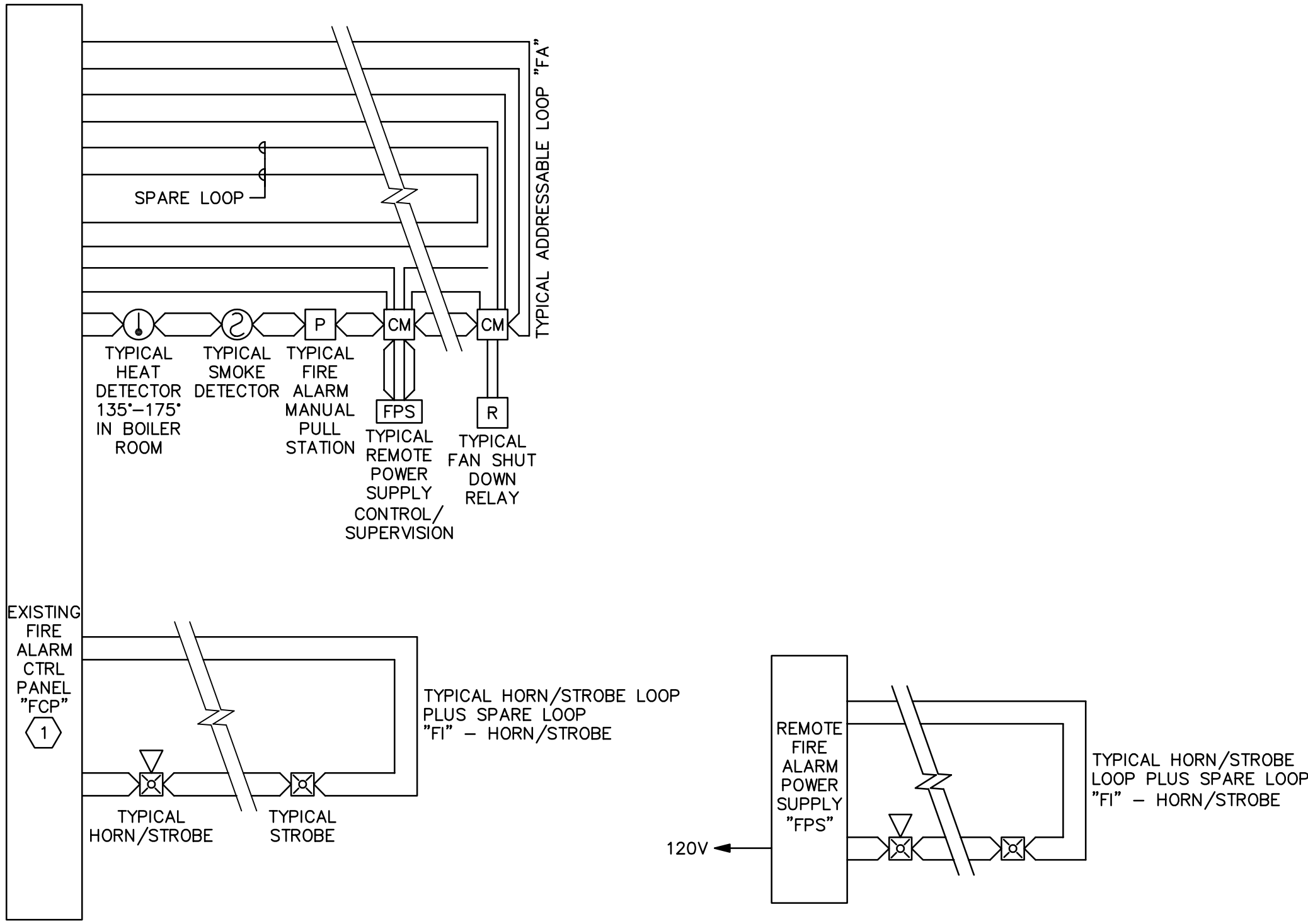
COPYRIGHT:
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO
COPYRIGHT LAWS AND IS THE PROPERTY OF L.K. SORENSEN
ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER
PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE

LIGHTING
FIXTURE
SCHEDULE

EL601

File name: P:\2006\20060289\Drawings\Sheet\89EY601.dwg Last Plotted: 05/16/2006 @ 09:53 By: STS



C3 FIRE ALARM RISER
NO SCALE

GENERAL SHEET NOTES

- PLANS ARE BASED UPON 99 MONITOR AND CONTROL DEVICES PER ADDRESSABLE LOOP. OTHER CONFIGURATIONS ARE ACCEPTABLE SUBJECT TO CONTRACTOR ALLOWING FOR INCREASED WIRING REQUIREMENTS AND SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION. MAXIMUM INITIAL DEVICES PER LOOP SHALL NOT EXCEED 75% MAXIMUM ALLOWABLE.
- PLANS ARE BASED UPON THE WIRING SCHEDULE SHOWN. WHERE MANUFACTURER'S REQUIREMENTS EXCEED REQUIREMENTS SHOWN, INCLUDE ADDITIONAL ASSOCIATED COSTS AND SUBMITTAL DRAWINGS INDICATING NEW WIRING CONFIGURATION.
- PLANS ARE BASED UPON 2 AMPS AT 24 VDC, NOT TO EXCEED 75% (1.50 AMPS AVAILABLE), POWER SUPPLY CAPACITY PER NOTIFICATION CIRCUIT. NOTIFICATION DEVICE LOADS ARE BASED UPON NOTIFICATION DEVICE SCHEDULE SHOWN. INCLUDE ADDITIONAL ASSOCIATED COSTS FOR INCREASED WIRING AND POWER SUPPLY CAPACITY IF LOADS OF ACTUAL DEVICES PROVIDED EXCEED CIRCUIT CAPACITY, OR IF LOAD OUTPUT OF ACTUAL POWER SUPPLIES PROVIDED IS SIZED DIFFERENTLY. PROVIDE SUBMITTAL DRAWINGS SHOWING NEW WIRING CONFIGURATION.
- PROVIDE POWER SUPPLY CAPACITY AS REQUIRED FOR DOOR HOLD OPENS SHOWN.
- BATTERY CAPACITY TO BE ADEQUATE TO OPERATE 15 MINUTES AFTER 24 HOURS PLUS 25% SPARE CAPACITY.
- RUN SPARE LOOPS IN SAME CONDUIT. DO NOT EXCEED 40% AREA FILL OF CONDUITS.
- PROVIDE DUCT DETECTORS FOR SUPPLY AND RETURN AIR SYSTEMS OVER 2000 CFM. INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.
- PROVIDE MANUAL PULL STATIONS IN BOILER ROOMS AND KITCHENS.
- PROVIDE ONE YEAR OFF SITE MONITORING INCLUDING ALL INTERFACE DEVICES AND MONITORING CHARGES. COORDINATE WITH BUILDING OWNER'S OFF SITE MONITORING COMPANY.
- LOCATE SMOKE DETECTORS MINIMUM 3' FROM AIR SUPPLY AND RETURN LOUVERS.
- PROVIDE SYNCHRONIZED STROBES THROUGHOUT FACILITY. PROVIDE SYNCHRONIZATION MODULES PER MANUFACTURER'S REQUIREMENTS. INCLUDE ADDITIONAL WIRING, IF REQUIRED.
- INITIATING AND INDICATING LOOPS SHALL NOT SERVE AN AREA OF GREATER THAN 22,500 SQUARE FEET. PROVIDE ADDITIONAL LOOPS FOR AREAS LARGER THAN THIS.
- ALL OUTPUT DEVICES ARE DESIGNED ON SYSTEMS WITH 2 AMP POWER SUPPLY.
- HORN/STROBE BASED ON 120 MILLIAMPS, DOOR HOLDERS BASED ON 70 MILLIAMPS.
- INSTALL DUCT DETECTORS PER NFPA 72 REQUIREMENTS AND PROVIDE ADDITIONAL DUCT DETECTORS DEPENDING UPON FINAL DUCT ARRANGEMENT.

SHEET KEYNOTES

- EXISTING FIRE ALARM PANEL IS CERBERUS PYROTRONICS #MXL-1Q.

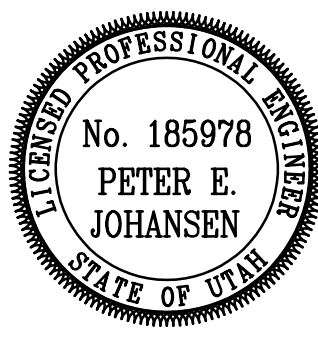
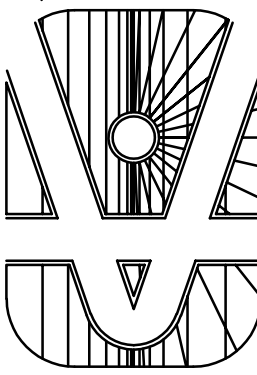
WIRING SCHEDULE

| FUNCTION | < 500' | < 1000' | 1000'-3000' | > 3000' |
|----------------------|----------|----------|-------------|----------|
| ADDRESSABLE LOOP | #18 TSP | #18 TSP | #16 TSP | #14 TSP |
| POWER LOOP | #14 THWN | #14 THWN | #12 THWN | #10 THWN |
| SPARE LOOP | #14 THWN | #14 THWN | #12 THWN | #10 THWN |
| STROBE HORNS | #14 THWN | #14 THWN | #12 THWN | #10 THWN |
| MAGNETIC DOOR HOLDER | #12 THWN | #10 THWN | | |
| SPEAKERS | #16 TSP | #16 TSP | #14 TSP | #14 TSP |

NOTIFICATION SCHEDULE

| SYMBOL | STROBE SIZE | COVERAGE | AVERAGE CURRENT | MAXIMUM PER CIRCUIT ALONE |
|--------|-------------|----------|-----------------|---------------------------|
| | 15 CD | 20'x20' | .085A | 17 |
| | 30 CD | 30'x30' | .135A | 11 |
| | 75 CD | 40'x40' | .200A | 7 |
| | 110 CD | 50'x50' | .225A | 6 |

L. K. SORENSEN ASSOCIATES, INC.
ARCHITECTS / PLANNERS / LANDSCAPE ARCHITECTS
3448 SOUTH MAIN STREET
SALT LAKE CITY, UTAH 84115
(801)476-0800 Fax (801)476-0816



CONSULTANTS

MECHANICAL:
ADVANCED CONCEPTS
ENGINEERINGS

ELECTRICAL:
SPECTRUM ENGINEERS

JOINT
OPERATIONS
CENTER
DRAPER COMPLEX
DRAPER, UTAH



| | | |
|------|------|-------------|
| | | |
| | | |
| | | |
| | | |
| MARK | DATE | DESCRIPTION |

| | |
|---------------|-------------|
| PROJECT NO: | 0612 |
| DATE: | 01 MAY 2006 |
| CAD DWG FILE: | |
| DRAWN BY: | STS |
| CHECKED BY: | PEJ |
| DESIGNED BY: | PEJ |

COPYRIGHT:
THIS PRINT AND ALL INFORMATION HEREON IS SUBJECT TO
COPYRIGHT LAWS AND IS THE PROPERTY OF L. K. SORENSEN
ASSOCIATES, INC. AND SHALL NOT BE USED ON ANY OTHER
PROJECT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.

SHEET TITLE

FIRE ALARM
SCHEMATICS

EY601